

The Application of Harvey's Theories into China's Urbanization of Capital

Ma Yun

Examiner: Eric Clark

Supervisor: Anders Lund Hansen

Department of Human Geography Course code: SGEM08

Semester/year: Spring/2019

Table of Contents

Title	1
Abstract	3
1. Introduction	4
2. Research Question	6
3. Methodology	7
3.1 Document Analysis Method	7
3.2 Comparative Research Method	8
3.3 Historical Research Method	8
4. Literature Review	9
5. Theories	18
5.1 Production of Space	18
5.2 Three Circuits Theory	20
5.2.1 The primary circuit of capital	21
5.2.2 The secondary circuit of capital	22
5.2.3 The tertiary circuit of capital	23
5.3 Spatio-Temporal Fix	25
5.4 The Urbanization of Capital	26
5.5 Theory Summary	31
6. Examining China's Capital Circulation of Urbanization	32
6.1 The Process of Urbanization in China	32
6.1.1 1978-1983	34
6.1.2 1984-2007	35
6.1.3 2008-present	45
6.2 Summary and Discussion	48
7. Comparison between of Chinese and Western Models	50
7.1 Sources of Capital	51
7.2 Motivation	52
7.3 Capital Accumulation	53
7.4 The Path of Capital Circulation	56
7.5 The Form of Urbanization	57
8. Land Finance	58
8.1 Land Finance and the Urbanization of Capital	58
8.2 Risks Arising from Land Finance	61
8.2.1 Industrial Risk	62
8.2.2 Fiscal Risk	63
8.2.3 Financial Risk	64
8.2.4 Social Risk	66
9. Conclusion	67
Poforonco	7/

Abstract

China's rapid urbanization since the reform and opening up in 1978 has drawn international attention. Scholars like David Harvey has written a lot regarding the capitalized urbanizaiton in China. After studying Harvey's books, articles and other related works, I found that it is reasonable to apply them into Chinese spatial context since they provide well-founded reference and enlightenment to study China's urban construction and development. My research questions are how and to what degree can Harvey's urban theories be applied into the urbanization process in China under the condition of the socialist market economy? And to what extent does this Chinese-style urbanization deviate from the western model? Based on the spatial production, the three circuits theory and other capital urbanization theories, this thesis sorts out the historical urban development path in China and analyzes the policy changes of the Chinese central government as to land and housing policies since 1978. I also come to get some discrepencies in terms of government roles, capital source, motivation, land finance, the circulation path and the form of urbanization, and in which most of the problems lie in land finance. Although I found out that to some degree the spatial development seems identical to what Harvey has depicted, we still need to look at the Chinese case more carefully with deep thoughts about China's unique historical background, special political economy, and other contextualized conditions.

Key words: David Harvey, China, urbanization, capital, land finance.

1. Introduction

China has been reforming and opening up for 40 years, the remarkable achievements have attracted worldwide attention. With the rapid speed of industrialization, it is necessary to give more focus on the urbanization process across this country which is getting significantly faster, housing prices are soaring in a seemingly uncontrollable rate as well. Guiding under the socialist market economy policy with Chinese characteristics, however, commoditization or financialization, those key characteristics of liberal economies, seem to dominate China's urban space and have raised many social problems which mainly used to exist in capitalist countries before. Many scholars have shown their interests in China's turning towards commercialization and capitalization transition regarding urban development, as well as in a series of opening measures issued by the Chinese central government to promote large-scale urbanization.

The famous geographer David Harvey has also paid attention to the Chinese case. Marxist geographers represented by Harvey apply Marxist theories and methods into urban issues, suggesting that urban spatial organization and structure are the needs and products of capital production, and revealing the essence of capitalist urbanization is actually the contradicting process of capital agglomeration and class struggle. These geographers also extended it to the criticism and analysis of the entire capitalist political economy, thus developing the Marxist urban theory. Although Harvey's research focus has always been in capitalist societies, there are many analyses of China's urbanization path in Harvey's work. Especially in the past several years when Harvey visited China, he has made many academic reports with his views on the Chinese urbanization road. David Harvey believes that China's urban and land development path completely follows the ways found in capitalist societies described by Marx. He also believes that his own critical theories, such as space production, capital circulation and so on, can fully explain China's

large scale capitalized urban development. At the same time, Harvey expressed some concerns that this kind of capitalized urbanization in China is not unique and has emerged and lasted for a long time in many capitalist countries.

There is no doubt that Harvey's of urbanization theory provides us with a broader perspective on the study of urbanization in China. However, due to lacking of interest in studying the relationship between Marxism and urbanization in Chinese academia previously, the topic has not gained so much attention, which leads to rare communication in these two fields, and the introduction of Marxist geography is also quite limited. Therefore, Chinese scholars have little research in this field. Only some scholars have introduced or guoted Harvey's articles or works. Most of the studies and applications of Harvey's urbanization theory only remain in quantitative verification and lack dialectical criticism analysis. Moreover, at present, most of the researches are targeting on specific urban planning strategies or urban economic geography. However, there are few systematic reflections on the overall urban development path. Harvey's emphasis on China's urbanization road just gives many scholars who study urbanization development issues a new and unique perspective on capitalization and space production. Gradually, Harvey's analysis of Chinese roads has thus begun to attract the attention of many scholars, especially Chinese scholars. But among them, many scholars believe that Harvey's theoretical interpretation is to some degree one-sided, which cannot be used to analyze the complicated situations in socialist China without considering China's particularity politically and economically. But still, Harvey believes that the future direction of China's urbanization is increasingly important to the process of urbanization in the world, in spite of denying this urbanization model has surpassed the ones found in Western capitalist countries. However, how to grasp the general attributes of urbanization in China and to get a clear understanding of the potential problems arising

from it have gradually become an urgent problem to be solved from the perspective of the urbanization of capital.

2. Research Question

As stated above, it comes to the research question for my thesis which is how and to what degree can Harvey's urban theories be applied into the urbanization in China under the condition of the socialist market economy? If China has its own characteristics, to what extent does this Chinese-style urbanization deviate from the western model? The purpose of the thesis is to provide China's massive urbanization process a theoretical interpretation by means of using Harvey's critical urban theory companied with other Marxist theories to compare the similarities and differences between Harvey's theory and the urbanization practice in China. By going through the intrinsic feature of Chinese urbanization I hope to find out the core problems embedded in China's urbanization process.

The main body of this paper is divided into five sections to discuss. The first section mainly summarizes and sorts out the representative Marxist spatial theories. At the same time, it explores the similarities and differences, connections and interactions between these scholars' views, and lays a theoretical foundation for bringing theory into the Chinese context afterwards. The second section mainly sorts out the macroeconomic policies, land development policies and housing policies since China's reform and opening up in 1978, discusses the background when the central government proposed these policies, the effectiveness of these policies and the potential impact on China's spatial patterns. The third part is the main body of this thesis which emphasizes on the transformation process of China's urban development and capital urbanization in the past 40 years and the dialectical analysis of the adaptability of Harvey's theory within China. In other words, this paper has mainly applied relevant principles derived from Harvey's space thoughts to

explore the gradual commercialization in Chinese cities in terms of the preconditions, the background contexts, and even the differences in forms and contents encountered during the collision between China and other classic western ways of urbanization. In the fourth section, after using Harvey's Western urbanization theories to analyze and contrast the development process of Chinese urbanization, I point out the key issues and potential risks associated with the development of China's urban capitalization. The fifth section is aiming at getting a conclusion, meanwhile refining and reconsidering my previous point of view in a deeper way.

3. Methodology

Relatively speaking, there are lots of macro-theoretical studies done by Marxist geographers rather than empirical researches. Hence this thesis attempts to explore China's spatial challenge by means of utilizing the logic of Harvey's urban theories. I am going to look at some spatial theories of Marxist scholars such as Harvey and then transplants them into another space to see how this collision would appear. By virtue of combining the theory of the urbanization of capital with China's special political and economic system and reform-oriented policy to guide and analyze China's current space development issues, we might get new insights about our research question or even unfold China's future development of urbanization in the context of globalization and deep reform and opening up, to a certain extent enriching the theoretical dimension of Marxist geography.

3.1 Document Analysis Method

Document analysis refers to analyzing collected literature to get to know the nature and conditions of the research objects, extracting the author's own opinions. The review and research of related literature is an important way to obtain the views of Marxist geographers' space theories. On these grounds, I have reviewed the classic texts of some Marxists geographers such as Lefebvre and Harvey, as well as other scholars' analysis and relevant reviews on these works. By reorganizing the acquired data (analysis and comparison) and using rational thinking methods, I have summarized some of the critical theories adopted or approved by Harvey, as well as other capital urbanization thoughts scattered in various works. After summarizing the core concepts of space production, capital urbanization and other related theories, I conducted background analysis and horizontal connection analysis on these theories and studied the issues related to capital urbanization in a deeper level. That would help to discover the inheritance and development between theories, as well as their considerations about spatial issues. More importantly, I also came up with my own insights from those theories.

3.2 Comparative Research Method

Through the combination of theory and practice, we look for the corresponding period between China's various urban development stages and capital circuits after the reform and opening up and use the ideas to carry out the contextualization of China's urbanization. According to their own characteristics of various stages of China's urbanization development, this paper reviews the historical urbanization process, and qualitatively analyzes how Chinese urbanization reflects Harvey's thoughts and what the similarities and differences are with conparison, to sum up the most pressing issues and demands and also in an attempt to determine whether Harvey's theories can be regarded as the universal law of capital urbanization, or whether there is a special rule in China's capital urbanization.

3.3 Historical Research Method

In terms of analyzing the impact of China's urbanization since the reform and opening up in the past 40 years, this paper adopts a method of studying past facts

in the order of historical events, focusing on historical studies of government systems and policies, with the aim of analyzing the trajectory of policy evolution in the process of China's capital urbanization. When adopting this method, this thesis tries to avoid interpreting these policies and regulations out of context, rather tries to find causal and contigent explanations from the relationship of various events and systematically study their past development and the reasons for their changes instead.

4. <u>Literature Review</u>

As an important representative of Marxists, David Harvey (1985) mentions the notion of "The Urbanization of Capital" in his book published in 1985, in which he states the intrinsic correlation between capital and urbanization. He also systematically states his spatial criticism of contemporary capitalism, deeply criticizing neoliberalism in his works such as "Neoliberalism: A brief history" (2005) and "The New Imperialism" (2003). Harvey further elaborates his theories of capital accumulation and urban crisis at "The Limits to Capital" (2006) and "Rebel Cities" (2012). In order to better understand Harvey's theories and apply them into Chinese practice, it is reasonable that we first take a look at some of the reviews of his theoretical works.

Many scholars have made positive comments on Harvey's urban theory. The book of "Marxism and the City" by Ira Katzenelson (1993) is a very important monograph on the study of Marxist urban thoughts, in which Katzenelson considers that it is not enough for Harvey to conclude the analysis of the circulation of surplus capital in the city at the end of "Social Justice and the City". Harvey tries to reconstruct Marx's "Capital" and analyze with Marxist capitalist economic logic in the fields of space, labor, capital, etc. in the book of "The Limits to Capital", in which he attempts to provide a textual analysis. He also has highlighted and developed the issue of financial capital and rent theory. Gordon L. Clark (1983) from the

University of Chicago gives high marks to Harvey's book "The Limits to Capital". He believes that this book profoundly reveals the potential internal contradictions in capitalist societies, the trend of crisis formation and the irrational reality of capitalist societies. Clark especially appreciates Harvey's analysis of the inherent contradictions of the capitalist system. He believes that this book shows that Harvey's academic vision has been explored and deepened, laying a deep theoretical foundation for Harvey's comprehensive and in-depth discussion of the social system and the spatial form and function of capitalism.

Of course, some scholars also put forward some shortcomings of Harvey analysis. R. J. Morris (1988) argues that Harvey's research is based on the notion that capitalism has to be urbanized in order to survive and capital has the necessity to keep accumulation and circulation. He thinks that Harvey constantly explores the connection between space and socioeconomic relations, but still, over-simplifying the urbanization process in part. Sharon Zukin (2006) also gives comments on the limitations of Harvey's urban spatial thoughts in the article "David Harvey on Cities". In her view, the rich urban community life of cities was neglected by Harvey, and the experience of social capital accumulation can help improve life quality in slums, which was also ignored by Harvey. She thinks Harvey always believes that the city is always closely linked to capital and capital is always related to commodities, finance or people. That is why Harvey puts too much attention on the relationship between urban expansion and capital.

In addition, there are also quite a lot of analyses of China's development path in Harvey's works. Harvey believes that the construction of socialist China must first accumulate wealth through capitalism, which is a necessary path to go through and the reform in 1978 is just the time node for the beginning of capitalist exploration. As Harvey (2018) said at the

Nanjing University Symposium, "China needs new technology and organizational form, as well as great changes to create productive capacity and wealth, thus building socialism. And the socialist state can only be achieved by virtue of adopting capitalism first, which however is not the usual way of thinking in the history of communism. Since 1978, China has entered the period of the capitalist stage, which I think is a key point."

Harvey attributes China's achievements in various fields since the reform and opening up to China's turn to neoliberalism. He writes that "China, we may conclude, has definitely moved towards neoliberalism and the reconstitution of class power, albeit with distinctly Chinese characteristics" (Harvey, 2005: 151). On the one hand, as the establishment of China's market economy system, Harvey believes that this move has made China's entire economic structure move toward neoliberalism. It is generally recognized that neoliberalism holds the idea of market dominance that is characterized by privatization, liberalization and marketization as its core content. Therefore, Harvey believes that after the reform and opening up, China releases individual and local enthusiasm, thereby increasing productivity and stimulating economic growth because reform seeks to introduce market forces to support the Chinese economy internally, more importantly, the central political and economic power is partially decentralized to various regions (Harvey, 2005: 120-121). On the other hand, as for foreign trade, Harvey regards it as an attraction to foreign capital and considers it strengthens the accumulation system of global capitalism. In the early days of reform and opening up, China's foreign trade accounted for only 7% of the gross national product, and by the early 1990s, it rose to 40% (Harvey, 2005: 135). This has also led to a trend of foreign capital investment in China, while it also exposes China to the risk of overproduction.

Beside of adopting the market economy, in the context of complex globalization, Harvey believes that the Chinese road is no different from the global economic operating model of new imperialism. In this regard, Harvey, et al. (2016) explained in an academic interview when visiting China that it is necessary to recognize that the driving force of capitalism lies in the growth of capital, the necessity of capital enlargement and annexation, and after observing the history of capitalism, it has been found that space expansion is always being used to respond to the need for growth, that is to invest in the new land. This is manifested by one of the solutions to the crisis of the 1970s, which is globalization, the world, especially China, was hence open to capital. In addition, as Harvey (2018) said at the Nanjing University Symposium, when China joins the global economy, it opened its doors to the mandatory competition law, and China succeeded. But he also said that this success paid a price, one of which is the low labor force. This is a kind of exploitation mentioned in Marxism, and this is the only way for China engaging in the global economy. From these opinions, Harvey believes that there are not only phenomena of primitive capital accumulation in China's developmental path, but also fundamental factors for the existence of capitalism.

In addition, Harvey holds that China is currently facing the problem of digesting excess productivity and capital so it will export its surplus capital and labor overseas through opening up. So China has absorbed and created a large amount of surplus capital in the past 40 years, it seems urgent to find an approach for these remaining capital (Harvey, 2012: 57-66). It is worth mentioning that since the global economic crisis in 2008, China's export trade has been hit, which has caused problems such as unemployment. Harvey argues that in response to the excess productivity problem facing China, the Chinese government has solved it through large-scale urbanization and fixed asset investment, meanwhile saved the world economy (Harvey, 2012: 57-66). However, in Harvey's view, spatio-

temporal fix can only temporarily ease or delay the excessive accumulation and economic crisis, but cannot fundamentally reconcile the fundamental contradiction of capitalism so the outbreak of economic crisis would not be avoided (Harvey, 2003).

However, there are also many scholars who believe that the views of Harvey talked above represent his one-sided logic of capital determinism. As mentioned earlier, Harvey believes that capitalism cannot solve the problems caused by its economic crisis, so it is necessary to transfer these issues spatially. It can be seen that Harvey tries to attribute these evolving socio-economic problems derived from all fields in society to seeking surplus value. In this regard, a Chinese scholar, also the dean of the School of Marxism at Southeast University, Yuan Jiuhong (2018) quoted the feminist Marxist Doreen Massey who has sharply criticized the onesidedness of Harvey's capital logic. Massey believes capital is not necessarily the only force for urban development, as it might be influenced by factors such as race, gender, politics, etc. Therefore, professor Yuan thinks that the understanding of the Chinese road cannot be unilaterally based on the logic of capital, rather should be grasped from multiple perspectives. On the other side, we can see from the above analysis that although Harvey believes that the Chinese road under globalization supports the global capitalist system implicitly, the development model is still following the example of the west. China has launched a large-scale investment plan for infrastructure construction and the construction of a cluster of cities. However, in Harvey's view, these measures are aimed at solving the problem of excessive accumulation and the sharp deterioration of debt levels (Yuan and Chen, 2018: 111). This is no strange to the history of capitalism, so China's development is not special or new, but its scale of development is very different. However, Yuan Jiuhong (2018: 111) considers that when nowadays facing the capitalist-led globalization process, the Chinese development path does not follow the single capital logic to maintain the capitalist system, instead uses capitalism to promote the development of the global economy. It is undeniable that in today's world, the trend of globalization has been rolling forward, and China is also actively participating and even integrating into globalization. But unlike Harvey's one-sided understanding of this process with Spatio-Temporal Fix, Yuan thinks, the Chinese road has also had an impact on the globalization as China actively participates in global economic governance and is increasingly playing a bigger role in the development of the global economy.

The analysis of urbanization is an important facet of Harvey's research, and urbanization is also a critical issue that China has to face. Harvey has discussed this in some of his books, in general, he believes that China's urbanization also follows the logic of capital. He said that urban construction has been promoting the government's infrastructure spending and real estate spending, becoming the most important element of China's economic growth, even more than foreign trade (Harvey, 2012: 57-66). Although China's urbanization process is still at a high speed, but in Harvey's view, people should think about whether this way of solving the financial crisis through a large amount of infrastructure construction is reasonable. He believes that urban rights are a kind of appeals to the urbanization process, as well as have some control over the construction and the transformation of the city. To achieve this kind of control over the city, a fundamental and radical approach needs to be adopted (Harvey, 2012: 3-26). But under the logic of capital accumulation, the overaccumulation of capital will carry out a more brutal deprivation from developing countries. Therefore, if urbanization absorbs excessive labor and capital, although it can stabilize the accumulation of capital in the short term, it will bring a series of chain problems, such as accelerating the expansion of social inequality, unemployment caused by global finance

crisis, expanding urban-rural income gaps and promoting capital speculation (Harvey, 2012).

Yet Yuan Jiuhong believes that Harvey still looks at China's urbanization path with the logic of capital (Yuan and Chen, 2018: 112). It is too onesided to explain the development problems in all places with a single capital logic. As a researcher studying Marxist theory, he believes that China is taking a new socialist urbanizing road regarding people as its core. What follows it is not a logic of capital, but the government's regulatory role instead which is a non-negligible part of China's urbanization road in terms of public service provision, land resource allocation, rural labor employment, etc. Professor Yue Wenze (2016) from Zhejiang University also believes that the capital accumulation and circulation model characterized by the combination of space production and commodity production, established in China after the 1980s, has supported the rapid urbanization of the past period, but it did not adhere to Harvey's three circuits theory. More importantly, China launched a project of constructing a new type of urbanization in 2014 which emphasizes people-oriented thinking and has essential differences with traditional urbanization in terms of meanings, paths, models, and mechanisms. Therefore, Professor Yue called for the establishment of a new capital accumulation circulation model that matches the new urbanization based on the existing model.

Apart from some general guidelines from the Communist Party's top management and the central government, there are plenty of related aspects that have been mentioned by other scholars. Wang Youzheng and Zhang Jingxiang (2018) from the School of Architecture and Urban Planning of Nanjing University believe that when capital enter into different circuits the difference lies in what mobilizes the capital circulation. It is mentioned by Harvey that the three circuits theory is based on the profit-seeking nature of capital, while in China, capital

circulation is more appeared as an external effect of different development strategies. After sorting out the internal laws of China's urban development, they found that the external effects of China's different development strategies are just consistent with the external representation of capital circulation, instead of promoting capital transformation intentionally by developmental strategies. They gave us an example that, in the secondary circuit, the starting point of urban development is not to improve the built environment, but to attract investment and promote consumption, thus resulting in urban development. The improvement of the built environment is the external effect brought by the development zones and real estate construction. Wu Tinhai (2013) argues that in the process of capital urbanization, space production has released the capital accumulation potential of urban space and injected great impetus into China's economic take-off. He also believes that the formation of capital circulation of space production is the result of the socialist market economy reform called "go across the river by feeling the stones" implemented through absorbing some capitalist elements when urban construction is going through difficult times. Researchers from the School of Construction Management and Real Estate of Chongqing University, Long Qimeng, Fu Hongyuan, and Liao Yan (2016) believe that the capital circulation in capitalist countries is following a rational capital logic. Due to the participation of local governments in the land market, China's capital circulation has its own unique characteristic that is the local governments use administrative power to integrate land owned by collectives or other purposes, and then sell land use rights to obtain highpriced land transfer fees to maintain local fiscal balance. Through land finance and real estate taxation, local governments have established a very rapid method of capital accumulation of space production.

George C. S. Lin (2010) from the University of Hong Kong argues that land issues are the key to China's urbanization. In China, due to the unclear land

property rights, a large amount of rural land is transformed into urban land, providing a large amount of urban land for urbanization. However, the city government increased its income through land sales, and then accumulated the initial wealth for urban development. Therefore, the author believes that the land property rights should be defined according to the political, economic and social background of different regions. Lin also mentioned in his article that in the Third Plenum of the 17th Central Committee of the Communist Party of China (CCCPC) in October 2008, the silence of top leaders on further marketization and privatization of rural land exposes the sensitivity and complexity of China's land issues, and Western neoliberal economic theory cannot be used entirely to explain China's land policy. At the same time, he believes that the serious financial crisis of the local government stems from the reduction of the central government's budget, as the political and financial commitments of the central government to manage local economic development are reduced, the municipal government has to make their efforts to raise and mobilize fund for urbanization. The authors cited an example of a region -Guangdong Province in southern China where it first tried land marketization. It is illustrated that, in a constantly changing political economy, having inclusive thoughts is necessary, like the author said: "the situation in Guangdong reveals that land development and urban expansion have occurred in the broader context of a changing socialist political economy, particularly the reformulation of central - local fiscal relations governing investment and taxation" (Lin, 2010: 95). Besides, drawing upon Harvey's view, scholars from the University of Hong Kong and China Academy of Urban Planning and Design also find that having a well-protected law and institutional foundation is a prerequisite of investing in the urban built environment where individual rights and property rights could be defended in some way, whereas the situation in underdeveloped countries are politically and socially different (Lin and Yi, 2011: 51). Meanwhile, they think that the urbanization in China is

contingent upon land transactions which are heavily affected by changing fiscal and land regulations (Lin and Yi, 2011: 73). Contrary to capitalist society depicted by Harvey where the capital flow is facilitated by capitalists, "it is the imperative to mobilize capital for regional economic growth that has motivated municipal governments to engage in urbanization" (Lin and Yi, 2011: 74).

In summary, despite the powerful influence of Harvey's related theories, many scholars consider China's real situation is complex, blindly applying Harvey's theory of development and capital urbanization used in the West decades ago can no longer meet the changing political, economic and social environment in China.

5. Theories

5.1 Production of Space

To examine the theoretical form of space production, we need to sort out the historical evolution logic of space production. When faced with the phenomenon of spatial production in advanced industrial society, French philosopher Henri Lefebvre began to turn to social space analysis in his middle and late period on the basis of the Marxist social criticism. In the analysis of social space, he focused on the production process of social space and used critical thinking and methods to interpret the space production process and its problems, thus forming the idea of space production. Although Marx's space thoughts have played an important role in shaping Lefebvre's space production and critical capitalist theories, Lefebvre believes that Marx only sees the material production under the constraints of space and time, rather than seeing capitalist production as a process that could constantly surpass the limitations of geography (Lefebvre, 1991). Marx, in general, fails to establish a systematically geographical and spatial perspective in his own mind, which weakens his

vision of political theory. Harvey also believes that Marx and other scholars always give priority to the issues of time, history instead of space or geography (Harvey, 1985). Moreover, after Marx and Engels, Luxembourg (1913) put up with the imperialist theory, and her spatial analysis always focused on specific issues, such as national self-determination, urban-rural relations, the struggle of the imperialist colonial system for space, etc., but fails to construct a theory about the capitalist spatial production process. In short, historical materialism, in Harvey's words, is inclined to study historical changes but ignores how capitalism is producing its own geography (Harvey, 1985: 8).

In the 1970s, in pace with globalization, capital has promoted rapid development in science, communication, transportation, and productivity of capitalist society. More importantly, space has become an essential productive factor, not just a single place or physical container for production. In the book of "The Production of Space", Lefebvre (1991) clearly stated that the production of modern capitalist society has been transformed from production in space to production of Space, besides, capitalism is maintained and sustained by the possession of space and the integration of space into the logic of capitalism. The space mentioned by Lefebvre is a product of social production, which represents modern capitalism has not only produced material products but also turned space into the object of production and reproduction. In other words, capitalist production has expanded into space production and reproduction. At the same time, when Lefebvre focused his theory on the capitalist urbanization, he pointed out that the exploited way of producing urban space was driven by the capital needs for making profits and the social needs for consumerism. Also, in this book (Lefebvre, 1991), he mentioned that capitalism relies on new spatial production to obtain survival and development in modern society, and the characteristics of capitalist production relations is the rapid expansion of city boundaries, universally

urbanization and spatial organization in society. From his point of view, we can see that space as a whole has been fully integrated into modern capitalist production lines and models in order to obtain surplus value and capital accumulation.

Harvey quoted and disseminated Lefebvre's views because of some consistencies in views. However, Harvey did not want to overstate the space thoughts of Lefebvre, because he did not agree to regard space itself as the only research core. Harvey emphasized space should be placed in the connection of social production relations, instead of being analyzed separately from those relations. Capital space production is gradually developed through capital accumulation, so its research must be combined with other factors that affect capital accumulation, such as time, space, environment, etc. Harvey proposed his idea of space production in his book "The Limits to Capital" (Harvey, 2006), in which he abandoned Lefebvre's abstract proposition of space, instead turned to analyze capitalist development in contemporary capitalist society and attempt to study the relationship between production and capital in order to explain why space production is vital to the survival of capitalism and how it plays an important role. Harvey's criticism of space production is based on Marx's political economy and is carried out from the perspective of capital accumulation. Harvey (2006) believes that different social productions produce different spaces which are closely related to the production and reproduction of social materials. Space and social changes are hence always in the same process. Accordingly, new social forms must build new spaces to accommodate new social reproduction and material practices.

5.2 Three Circuits Theory

In the study of post-modern urban geography, Harvey inherited and developed the Marxist theories of capital accumulation and circulation and

placed their relationship into the vision of urban space production, forming a critical theory of urban geography. The three volumes of Capital provide a reference for Harvey to work on capital circulation: Marx's first volume of Capital mainly analyzes the capitalist production process that is the production and creation process of surplus value and capital accumulation is necessary to maintain capitalist production; in the second volume of Capital, Marx mainly examines the proportion of capital used in production and consumption during the period of reproduction expansion since reproduction and consumption must keep a suitable ratio, otherwise the hidden crisis would come out; in the third volume, Marx analyzes the downward trend of profit rate and its restrictive factors, which leads to the contradiction between the interests of individual capitalists and the entire bourgeoisie (Harvey, 2010). Harvey came up with the concept of the primary circuit through the contents of the three volumes of Capital.

5.2.1 The primary circuit of capital

The primary circuit is defined by Harvey (2003: 108-115) as the capital circulation in the process of industrial production which is directly used in immediate commodity production. He believes that Marx's view of the primary circuit profoundly reveals the essence of capitalist surplus value and the nature of its crisis. Marx pointed out (1995) that competition forces capitalists to constantly expand their capital to maintain their capital appreciation which can only rely on progressive accumulation. It shows that the continued development of capital accumulation is not simply because of the greed of human nature, rather because of capital. In order to get more benefits, they have to increase their capital investment to achieve an increase in production scale. However, this production is blind because it does not take into account the real demands in the market, resulting in the overproduction of goods in the circulation market. Moreover, for the purpose of achieving maximum profits, capitalists

continue to squeeze labor, so that people do not have sufficient money to buy goods, which leads to insufficient consuming power. Marx summed up these factors resulting in over-accumulation.

Based on Marx's theoretical thinking, Harvey re-explained the long-term capital over-accumulation crisis within capitalism. The capital over-accumulation crisis is a state of which capitalists are not able to find profitable outlets for their surplus capital (commodities, money or productive capacity) or labor (Harvey, 2003: 109). The most representative example of this crisis is the Great Depression in the 1930s. In Harvey's view, due to labor, market, resources, technology or other constraints, the lack of profitable investment opportunities led to a crisis of excessive capital accumulation, which also is the fundamental dilemma of the capitalist system.

Regarding to how to solve the problem of excessive accumulation, Harvey (2003: 108-115) gave us a detailed explanation through the other two circuits system of capital, in addition to the primary circuit (capital circulation in industrial production process), which are the secondary circuit (in the field of fixed assets and consumer funds) and the tertiary circuit of capital (capital investment in science and technology research, social public utilities such as education and health benefits, etc.). In Harvey's view, this inherent crisis of over-accumulation starting from the primary circuit, subsequently would enter into the secondary even the tertiary circuit and thus be absorbed into the long-term investment. So, what would happen if the accumulated capital moves into the next stage?

5.2.2 The secondary circuit of capital

Harvey (2003: 109) refers to capital flows in the form of fixed capital and consumption fund as the second circuit where the built environment is the

fundamental part which largely refers to urban space, including transportation, housing and so on. From the perspective of historical geography, Harvey explained the spatial production process and some of its cyclical contradictions. On the one hand, when capital accumulates excessively in the primary stage due to the asymmetry information between consumers and producers, as well as the declining overall profit rate, more and more people find that managing land can obtain more benefits than factory. Therefore, capital with profit tendency outflows from the first circuit by way of money capital and fictitious capital, implicitly represented by capital-driven urban space production. On the other hand, capitalism always wants to accelerate turnaround time to speed up the capital cycle. In order to avoid the devaluation and economic crisis caused by excessive accumulation, it can only be avoided by longterm investments in complex infrastructure or any other forms. This part of the investment takes a long time to get a return, which in turn delays the capital turnaround time and ease the problem with over-accumulation.

5.2.3 The tertiary circuit of capital

Harvey believes that a complete process of capital circulation in capitalist urban space production must include the third stage, investment in science and technology, as well as education, medical care, social security, and military fields (Harvey, 2003: 111). Since the amount of capital required for the tertiary circuit is huge, it is usually done through the administrative orders and the institutional construction of the state authority. What is more, whether the secondary and tertiary circuits can operate successfully for temporal transfer still depends to a certain extent on the role of fiscal and state institutions in regulating the tertiary circuit (Harvey, 2003: 113). So, we could figure out that, without the intervention of state institutions, private capital interests which are forced to consider

from their own interests would not increase investment in the tertiary circuit.

In view of time, capital entering the secondary and tertiary circuits helps mitigate the problem of excessive capital accumulation in primary circuit and achieve the temporal fix for quite a long time. However, the flow of capital does not always go around smoothly. If there is too much capital accumulated in the secondary due to capital's profit-seeking characteristics, or due to most professions in tertiary circuit require high threshold, then that would cause asset depreciation, insufficient public services and facilities, productivity improved slowly and so on. The even worse case is those loan borrowers who fail to repay the debt, indirectly leaving the government in financial crisis. Besides, another case would be the profits gaining in the secondary and tertiary circuit would more or less flow back to the primary circuit. If those reinvestment activities in industrial sectors are blocked or are not productive enough to make profits, the capital in the secondary and tertiary will also inevitably be too much. Thereby, the industries in the primary circuit cannot get the benefits from capital appreciation or productivity increase, and at the same time accelerate the depreciation of capital and assets.

After looking at the three circuits theory, it is not difficult to see that his analytical horizon and analytical framework are basically not separated from Marx's theory of capital circulation. Therefore, both theories have an intrinsic logical connection and the identical theoretical premise which is the declining profit rate. They both think that the insurmountable contradiction of the capitalist production derives from the private ownership of the means of production and socialized large scale production. The production is thus anarchic inevitably. In spite that a basic guarantee for capitalists to realize their overall interests is to achieve the balance between production and consumption, due to the instinct of

capitalist competition and the development of science and technology, it is almost impossible to come up to this balance. The consequence is not surprisingly leading to an economic crisis. Marx's analysis of crisis theory follows the dialectical principle of productivity. With the development of productivity, its relations of production may not accommodate the development of productivity, increasingly becoming the constraint of productivity. Therefore, Marx firmly believes that the crisis will always be accompanied by the development of capitalism. Harvey's micro-analysis of economic crisis also follows Marx's macro analysis, criticizing the capitalist society.

5.3 Spatio-Temporal Fix

Then, why can capitalism survive for so long after facing severe crises and shocks? Lefebvre gave us an explanation from the perspective of the production of space, pointing out that the conquest and integration of space has become the key to the survival of capitalism. However, this abstract theory failed to tell us why space production is vital to the survival of capitalism and how it plays such an important role, of which Harvey did. Harvey believes that when capitalism faces the excessive capital accumulation crisis, it would absorb labor and capital surplus in three ways: firstly, through investing in long-term capital projects or social expenditures (such as education or research) for temporal deferral to postpone the timing when capital re-enter the circulation field in the future; secondly, by developing new markets elsewhere for geographical expansion to explore new productive capacities, new resources and so on; thirdly, combining the above methods (Harvey, 2003: 109). This is the "Spatio-Temporal Fix" of capitalism mentioned by Harvey, a way to solve the excessive accumulation of capitalism by time delay and geographical expansion. It emphasizes the long-term development trend within capitalism built on Marx's theory that the continuous downward trend of

profit rate would inevitably lead to excessive accumulation, and ultimately even economic crisis. After careful observation, we can find that Harvey's theory does not abandon the historical dimension, rather completes the turning toward space dimension in order to interpret "Spatio-Temporal Fix" by virtue of understanding the dialectical relationship between the time dimension and space dimension.

5.4 The Urbanization of Capital

After we looked at Harvey's theory of space production, spatio-temporal fix, and capital circulation, we have recognized the nature of contemporary capitalist space, the inner contradiction of capitalism, and the role of capital in space production. Then, let us look at how Harvey elaborated his views on the process of capitalist urbanization. Why does capital play such an important role in capitalist cities?

Harvey's understanding of the urbanization process under the capitalist system is based on answering the question in the book The Urbanization of Capital: how capital has become urbanized (Harvey, 1985: 185). The urbanization of capital embodies how urbanization is defined in a context dominated by capitalist production. Harvey believes that under the conditions of capitalism, the production of urban space is mainly to achieve capital circulation, accumulation and make a profit. It is the accumulation of capital that shapes urban space. Harvey also attributed the process of urbanization to the process of capital circulation and accumulation. In his view, the capitalist society is a social form that aims at the endless pursuit of acquiring surplus value, and urbanization is the main way to absorb surplus capital and labor in the form of building houses and transforming the built environment. Harvey divides the built environment into a built environment for production and a built environment for consumption, the latter being the material structure of consumer activities.

Assets built into the environment in urban centers can be easily transferred to the process of capital accumulation by changing the way they are used, which is equivalent to what Harvey calls converting consumption funds into fixed capitals (Harvey, 1985: 195). In urban life, housing is the core of the built environment of consumption. Therefore, the real estate industry is the main driving force of urbanization.

We can see that the property industry to a certain extent can be considered as a result of over-accumulation of the primary circulation. It can not only realize the surplus value created by industrial production but also absorb relatively surplus capital and surplus labor, especially the latter one, making the property industry has the ability to produce surplus value as well. Therefore, as an important part of the secondary circuit, the property industry has become a new place for capital accumulation and surplus value circulation. In order to keep those surplus value preserved and proliferated, it must continuously carry out cyclical turnover, a series of urban space production, capital circulation and housing speculation start to come out and develop since then. Marxist economists Balan and Sweezy (1968: 142-177) agreed with Harvey's point of view. They examined the economic situation of the United States after the war and regarded the social expenditures in finance, insurance, and real estate as the way of surplus absorption and believed that the surplus value would expand in the stage of monopoly capitalism as a premise for the prosperity of property industry. They basically incorporated the real estate economy into the analytical framework of production methods and pointed out that under the influence of capitalist production, real estate has changed from the mode of pre-capitalist production to another mode in which construction environments are invested and built for the sake of capital appreciation. Similarly, we come to use Harvey's analytical framework to describe the relationship between the overcapacity situation and the property economy as follows. When the primary circuit is overaccumulated, surplus value and labor will then be largely transferred to the urban built environment to form a secondary circuit. The fact that the secondary circuit is the result of excessive accumulation of industrial capital, theoretically explains why when the real estate industry has a boom the real economy is usually being in trouble. Hence, the secondary circuit represented by the property industry promotes the production and reproduction of urban space, which has made the property industry become a new field of capital gain.

When the surplus value is absorbed by the secondary circuit, its own movement and value realization becomes crucial. However, the secondary circuit is also within limits. Because durable goods and the built environment for capitalist production mostly depend on the amount of demand for productive consumption, which implies how to achieve value realization in the secondary circuit still relies on the support of the primary circuit. It is unlikely to overcome the shortcoming of the general law that capital accumulation will inevitably develop into over-accumulation. However, other durable goods and the consumptive built environment are heavily subject to the effective demand of consumers. So, the built environment for consumption tends to be of paramount importance. That is why more and more developers are striving to produce and upgrade the urban consumptive environment which is represented by the capitalization of consumer goods and large-scale housing speculation.

When speaking of the property industry, no one can deny that it has become an important field of contemporary capital speculation since it has the advantages of large investing scale, long investing period and high return on investment. Along with housing as a large consumer product relates to all kinds of livelihood issues in urban life, the property industry's status in the urban economy, even the entire national economy is increasing dramatically. Harvey, in the first chapter "use value and the

exchange value" of the book "Seventeen contradictions and the end of capitalism" (2014: 15-24), reveals the reason for us about why the housing industry gets the attention from the public and how the house is capitalized. We know that housing is a speculative commodity that is built and sold in the market of a capitalist society. The exchange value of the house depends not only on the basic construction costs (labor and material costs) but also on the other two costs: the profits that are expected to be earned as well as the cost of purchasing land or renting land. That is to say, the exchange value is equal to the actual construction cost plus profit, interest on loans and capitalized land rent, thus, the purpose of developers is obviously to obtain exchange value rather than use value (Harvey, 2014: 17). In this mode, exchange value dominates the supply of housing but not use value anymore. When people borrow money to buy a house, if housing prices have risen, people can use the already appreciated house to make mortgage loans and get cash from the loans. Constantly rising exchange value would attract more people to buy houses, making houses as a hot speculative target (Harvey, 2014: 20-21). When the demand for housing in the market is also rising, and the role of wealth absorption and aggregation of the real estate industry continues to increase, then the growth rate of its exchange value would probably exceed the growth rate of national income and the rate of inflation. It makes sense that, therefore, in order to preserve and increase their wealth, speculative investing in the property industry has become a good choice. At the same time, the faster the real estate turnover, the faster the price rises, the stronger the incentives for investors to turn housing into other more types of properties (Gottdiener, 2010: 199).

The rise of the property price is inseparable from the massive investment in land and the construction of related infrastructure. Therefore, capital not only promotes the price of real estate but also drives the urbanization process, especially driving cities to sprawl outwards. Local governments

are also willing to see such expansion, as this is an important tool to stimulate the stagnant economy as well as to acquire a large amount of tax revenue. In addition to the government, interest groups from the real estate industry or some other relevant industries have emerged because land and house ownership is a means of wealth accumulation under capitalist production conditions, and everyone has the right and motivation to use it. Moreover, the prosperity in the real estate speculation means capital begins to circulate and proliferate in a completely new way. Because houses which have been originally considered as consumer goods start to represent capital relations. The essential feature of capital makes bulk of consumer goods like houses possible to be capitalized. Capital relations or capitalist production relations make houses no longer confined to a single consumption function, or even lose their consumption function in many cases. As Marx has mentioned before, that housing would be completely dominated by the profit-seeking logic of capital, and hence become the primary aspect of capitalization of consumer goods (Marx, 1946).

With the large-scale capitalization of consumer goods, the dominant form of capital evolved from industrial capital to financial capital, which caused changes in the urban built environment as well. That is, the development of the secondary circulation has led to changes in urban spatial forms. As a combination of bank capital and industrial capital, financial capital serves both fixed capital and consumption funds, making it easier for money capital to flow among different sectors or regions which further helps to shrink the space and for urban infrastructure to get access to debt financing production. That is because with the help of financial capital, real estate is not only seen as a general financial asset, but also a form of fictitious capital. It is this fictitious capital which makes land subordinate to the circulation of interest-bearing capital and integrates the land market, land use and space organization into the general capital circulation process

(Harvey, 1985: 97). Securitization is one of the operation of fictitious capital, including both housing ownership securitization and mortgage-backed securitization (MBS). The former belongs to asset securitization, harnessing financial leverage to facilitate real estate transactions and provide financing means for housing speculation. While the latter one as financial derivative which is the re-financialization of fictitious capital, often evolves into purely financial speculation and to a very real danger leads to economic bubbles and financial crises (Harvey, 2012: 45-49).

When houses are more often used as an investment, a financial asset rather than a consumer product, the rise in housing price becomes inevitable. And high housing price will lead to the spatial exclusion of ordinary people who will face relative housing shortages and renting difficulties in their current income level. The cities dominated by property markets are more of a place for capital living instead of human life, or such a city first serves the accumulation of capital, and secondly serves the life of people. What is worse, the urban built environment has its own relative stability, which could not be compatible with the rhythm of capital accumulation since property speculation with fictitious financial capital has brought cyclical investment fever and irreversible destruction.

5.5 Theory Summary

Capitalism is always maintained through the conquest and integration of space. Under the condition of capitalism, the formation and evolving of the urban built environment is the result of the capital shifting from the primary circuit to the secondary circuit. That is to say, the production of urban space is controlled and played by capital. The urbanization process is, in essence, the urbanization of capital. Those properties (land and space), that were once mobilized by construction and financial speculation, were involved in the torrent of exchange and became a flowing wealth.

Due to that higher profits engaging in space production can withstand the declining trend of average profit margins, the property market and construction industry are no longer subordinate economic sectors or secondary branches of industrial capitalism and financial capitalism, rather become the primary sector gradually.

6. Examining China's Capital Circulation of Urbanization

What we have learnt from the theoretical part is that mobilization of real estate is the concrete manifestation and inevitable result of capitalist urban space production under the logic of capital, as well as the circulation of capital is accompanied by the transfer of space. These views provide us with a framework for understanding China's rapid urbanization after the reform and opening up. If we say reform and opening up provides incentives for China to accept the surplus capital from the outside world and start capital accumulation, then a series of reforms referring land marketization and housing commercialization in China provide a solid base for capital implantation and further accumulation, which facilitate the mobilization of real estate. So that leads into the following questions: how and to what degree can Harvey's urban theories be applied to the urbanization in China under the condition of the socialist market economy? And to what extent does this Chinese-style urbanization deviate from the western model?

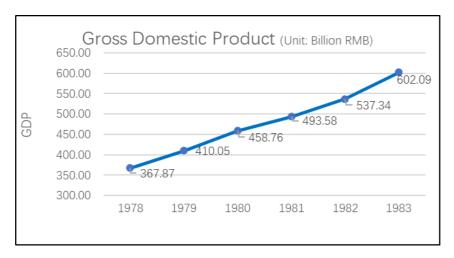
6.1 The Process of Urbanization in China

Before the founding of the People's Republic of China in 1949, China was in a state of war for a long time so that the social and economic development was greatly disturbed at that time. In the early days, China had been in the era of the planned economy. The overall level of urbanization in China was relatively low. Capital as a driving force for

development was not obvious. However, the national urban system and regional economic structure have begun to take shape. In the late of 1970s, it was urgent to adjust and change the development strategy after experienced large-scale social unrest and production stagnation due to a decade of "Cultural Revolution". The Third Plenary Session of the 11th Central Committee mainly shifted the focus of the party and the state to the development of socialist modernization, suggesting to restart the "four modernizations" and implemented the strategic plan of reform and opening up (Central Committee of the Communist Party of China (CPC),1978). Also Chinese academia has begun to openly discuss urbanization issues. Since then, China has focused its efforts on economic construction. Through the major changes in social concepts and institutional transformation, the socialist market economy has gradually been established, and capital has started to play its role gradually. Therefore, this study mainly selects the research on the urban development path of China since the reform and opening up.

There are some discrepancies of the focus of China's urban development in different time periods, however, it generally contains attracting foreign investment vigorously in industrial development, prioritizing the construction of development zones, cultivating the real estate market, and actively implementing industrial transformation, etc. This thesis mainly draws lessons from Harvey's theories and roughly divide the period after reform into three periods (1978-1983, 1984-2007, 2008-present). Of course, due to the complex national conditions, some local characteristics or minor factors might be ignored, but in order to study the overall situation in a macroscopic perspective, setting up time nodes properly helps me as an analyst to better grasp the macro-dynamics of China's urban development.

This stage was focusing on industrialization and modernization which could be seen as the primary circuit in Harvey's theory. At the time of reform and opening up characterized by prioritizing industrialization, the international environment was also undergoing rapid changes. On the one hand, the globalization process was accelerating, and the distance between different countries was gradually narrowing. On the other hand, most western countries were experiencing transformation from industrialized countries to post-industrialized ones, of which, industries started to shift overseas. In this context, China had actively tried to integrate into this developmental opportunity by virtue of cheap labor force. Compared with the situation when the new country was established, China's industrial development has made further breakthroughs during this period. This breakthrough was mainly carried out along the following three lines (Wang and Zhang, 2018: 101): first, setting up some foreign trading ports, actively undertaking foreign industrial transfer in order to expand the scale of industrial production and achieve modernized industrial production; secondly, proposing the cultivation of township industries; finally, adjusting industrial ownership structure, turning single public owned economy into multiple forms of ownership to stimulate industrial potential. Between 1978 and 1983, China's economic and social development as a whole hence continued to grow significantly. The annual average growth rate of Gross Domestic Product (GDP) in the past six years was 10.6% (Fig. 1), especially the Gross Industrial Output Value was showing a high growth rate.



(Fig. 1: Data from National Bureau of Statistics of China).

It is worth noting that since 1980, the State Council has approved the "Minutes of National Urban Planning Work Conference" which requires controlling the size of large cities, rationally developing medium-sized cities, and actively developing small cities (The State Council, 1980: 648). It is explained that the country has loosened up restrictions on urbanization and turned to actively and cautiously promote the development of small cities and towns instead. During this period, restrictions on production and population movements were also loosened, especially restrictions on farmers who wanted to enter into cities. Meanwhile, the land supply correspondingly was to promote industrial development, all of which were low-priced or even free of charge. The main purpose was to obtain tax and employment growth. But housing was limited to small-scale trading and construction. The capitalist way of allocating land and developing space was still in a state of ambiguity.

6.1.2 1984-2007

This stage was about to enter into the secondary circuit characterized by the fever of economic zones and the property market. With the further deepened reform, the Third Plenary Session of the 12th CPC Central Committee in 1984 discussed the "Resolution on Economic System Reform", pointing out that the basic task of the reform was to construct a modern socialist economic system with Chinese characteristics (Central Committee of the CPC, 1984). At that time, how to obtain a comparative advantage in the fierce competition among cities in order to attract enterprises to settle in and continue the urban capital accumulation had become an urgent problem. Development zones, as a policy product, had become the preference of many enterprises because of the superior infrastructures there. At the same time, as for cities, development zones had effectively improved the urban space quality, promoting industrial agglomeration to a great extent. These multiple effects of development zones make themselves as the best carrier to solve the urban development dilemma which is short of capital and infrstructure. Subsequently, a boom in constructing development zones started to emerge after several pilot ones.

1984-1996

Constructing development zones made land become a scarce resource, so where did the land for supporting the large scale development come from? Under the tacit approval of the central government, Shenzhen municipality publicly auctioned the land use right according to "Shenzhen Special Economic Zone Land Management Reform Plan", as an experiment in the history of China's land system reform (Ma, 1987). The experience of Shenzhen made the idea that land could be a convenient way to attract capital as an important funding source more clear and acceptable, which had become widely recognized by other local governments. In order to meet the needs of reform and opening up, NPC (National People's Congress) in 1988 passed the draft constitutional amendment, which clarified that land use right could be transferred by law (Liu, 2016). By this time land as a production factor in China's industrialized production has become increasingly important. The separation of land ownership and use

rights did change the status of land that was previously unpaid, unspecified period, and valueless, making land begin to become a commodity allowing for assignment, lease, and transfer. This emerging commoditization of land provided a critical resouse for large-scale urbanization later on, performing like a milestone in the development of urbanization in China. The most important feature of this stage was that land was more closely combined with capital from then on, thus the strategic value of space starts to appear, which promoted the rapid urbanization process in China afterward.

The development of China's real estate industry also started to take off in this period. Prior to this, funding from the central government had never been specifically allocated in urban infrastructure construction. Similarly, even though housing construction investment was included in the funding of workplaces which were allocated by the state, its proportion was usually low and not fixed so the urban housing area per capita in the early 1980s was lower than that of in the 1950s (Sun, 1983). Aiming at this issue, as early as April 1980, top Chinese national leader Deng Xiaoping put forward the idea that property was supposed to allow for trading. He pointed out that in the past we did not pay much attention to the construction industry, just seeing it as a problem of consumption sector, since the construction industry could make money, it was an important industrial sector that could increase income and accumulate wealth, therefore, the construction industry must be placed in an important position in long-term planning (Yang, 2010). After a period of debate on the commodification of housing, the government work report in the Sixth National People's Congress in 1984 clearly stated that urban residential construction should carry out commercialization pilots and the real estate business, thus breaking the traditional misunderstanding of real estate being for its noncommodity attribute (NPC, 1984). In addition that the above-mentioned land use right seperated from land ownership had laid an important land foundation for developing real estate industry, the commercialization reform of the housing system began to release people's desire of having their own private properties, also providing an important impetus for the burgeoning development of the real estate industry. It is in this context that the central government emphasized the development of the construction industry in 1985 and 1992 and ranked it as one of the pillar industries of China's national economy, as well as in 1992, it was first proposed that the real estate industry became one of the pillar industries of national economic development (Gong, 2016).

However, these two pillar industries quickly became deviated from the pre-determined trajectory set by the central government because of their concentrated "real estate fever" between 1992 and 1993. This fever was due to the 14th Congress of the Communist Party of China in 1992 that set up the reform goal of establishing a socialist market economic system. The meeting clearly stated that it was necessary to speed up the cultivation of the market system, actively cultivating financial markets including securities such as bonds and stocks, and developing technology, labor services, information, real estate, and the like in order to form a unified national open market system as soon as possible (Central Committee of the CPC, 1992). Under the background of the establishment of the market economy system, the commercialization of housing and the paid use of urban land began to advance in an all-round way. The real estate market began to take shape, housing prices were getting higher as well. However, problems followed inevitablly such as real estate investment was concentrating in high-end villas, office buildings, resorts, instead of ordinary houses for urban residents; national housing subsidies could not catch up with the rapid growth of housing prices (Gong, 2016). It seems that the reality was already beyond the expectations of reform designers. As to this regard, the central government issued a series of macro-control measures against fixed-asset investment in 1993 by virtue of banning

speculation in real estate economy, prohibiting banks from setting up economic entities, controlling credit, and reducing development zones, which finally prevented further speculation phenomena (Zhou and Sun, 2018). After this macroeconomic control, the central government began to reconsider the land policy that would be more compatible with urban housing construction, and strictly prohibiting financial institutions and land administration departments to operate in the real estate business (Party Literature Research Centre of the CPC Central Committee, 1996: 311-324). This cooling policy to achieve stable development of the real estate industry did not stop until the Asian financial crisis.

Although there were some fluctuations after this national level regulation, the real estate industry still showed a steady growth trend. In 1994, the State Council started to emphasize on deepening the reform of the urban housing system, clearly indicating the direction of housing reform: establishing an affordable housing supply system with social security for low and middle-income families and a commercial housing supply system for high-income families; establishing housing accumulation fund system; developing housing finance and insurance to establish a both policy-based and commercial housing credit system; establishing a standardized real estate transaction market and housing maintenance and management market (The State Council, 1994). This was obviously a sign that large-scale spatial commercialization and marketization in China was about to start, and the mobilization of unmovable real estates would also become the main driving force for the urbanization and national economy. In the same year, the state introduced a series of land policies aiming at promoting the market-oriented reform of urban land, regulating and encouraging the development of land market: firstly, during this period, the land administrative allocation system was reserved while the paid use of urban land has been introduced, which forms a "dual-track" land supply system; secondly, several measures were carried out to increase the degree of marketization through limiting the scope of administrative allocation, reducing the types of agreements transferring land, as well as commercial land must adopt the ways of bidding or auction to get the use right (Standing Committee of the National People's Congress, 1994). These series of urban land market reforms not only increased urban fiscal revenue and spurred land investment but also promoted urbanization significantly.

1997-2002

Overall, before the financial crisis in 1997, the development of the real estate industry had made progress from the embryonic stage to further upstage (just a bit slowdown in some years). However, in the 1997 Southeast Asian financial turmoil, Chinese export was hit by the recession and hence economic growth was hindered. In order to promote faster capital flows, the Chinese government focused on consuming excess capital to avoid devaluzation by stimulating domestic demand since the central government believed that the real estate industry had a high degree of industrial relevance. On the one hand, real estate construction could drive urban infrastructure construction; on the other hand, it could effectively stimulate consumer demand and promote urban capital flows. Therefore, the real estate industry was determined to be a new growth pole in the national economy. Accordingly, China implemented the housing system reform in 1998, the specific content as following: stopping the distribution of housings, gradually implementing the monetization of housing allocation; establishing and improving the multi-level urban housing supply system based on affordable housing; cultivating housing transaction market (The State Council, 1998). So far, China's urban housing system had been fully marketized, and the previous welfare housing allocation system was no longer existing anymore. In addition to increasing investment in the real estate sector to consume excess capital and improve the urban built environment, there were some financial reforms

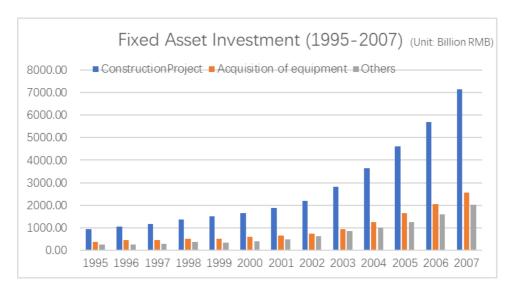
designed to suit the existing land system. Researches from the Collaborative Innovation Center for Capital Social Construction and Social Management in Beijing University of Technology shows (Li, 2013): China Construction Bank first started mortgage loans in 1998; the real estate industry was lifted the ban and went public in the stock market in 2001; under such circumstances, the proportion of real estate in fixed assets investment increased from 16.6% in 1997 to 22% in 2002, with an annual growth rate of 14% to 18%, and brought growth in construction, steel, cement, etc. as well. The booming development of these relevant industries literally enabled the Chinese economy to maintain around an 8% growth rate during the financial crisis.

2003-2007

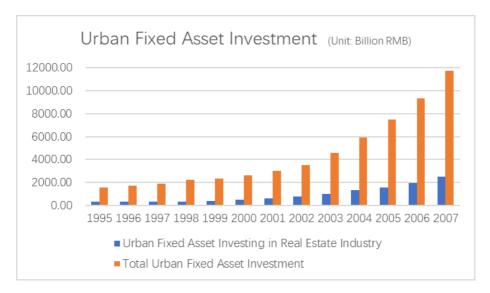
Year 2003 was the starting point for another phase. Due to the excess of financial capital, national investment has further increased. Fixed asset investment of the whole society increased from 5.56 trillion yuan in 2003 to 13.73 trillion yuan in 2007, expanded by 2.5 times; the proportion of fixed assets to GDP has also increased from 40.9% in 2003 to 55% in 2007 (National Bureau of Statistics of China, 2018). Thereinto, a large part of the fixed asset investment consisted in infrastructures such as highways, high-speed rail, and subway.

As far as real estate market was concerned, the State Council (2003) issued a circular in promoting a sustainable and healthy development of the real estate market, emphasizing that the real estate industry had become the pillar industry of the national economy and had been vigorously developed. Driven by the urban development and construction boom, during the period 1984-2007, especially after 1995, urban fixed asset investment and real estate development investment also increased year by year, as shown in figure 2 (Fig. 2). The investment in construction and installation projects which was closely related to the improvement of the urban built

environment grew rapidly. In 1995, its value was 939.51 billion RMB, then by 2007, its value was 719.53 billion RMB, growing by 7.6 times. Meanwhile, the growing investment in equipment and tools was also attributed to the improvement of the built environment (Fig. 3). All these data indicated that China's built environment-related investment had increased significantly within the secondary circuit. Moreover, with the gradual improvement of the function and radiation driving capacity of the development zone, some well-developed development zones were gradually transformed into new towns (Luo, Zheng and Yin, 2011), which further enhanced the investment and transformation of the relevant built environment.



(Fig. 2: Data from China Statistical Yearbook 2008).



(Fig. 3: Data from China Statistical Yearbook 2008).

The housing market reform also promoted the transformation of the land system. In 2004, the Ministry of Land and Resources and the Ministry of Supervision (2004) issued "Order No. 71" which stipulated that the supply of operational land must be strictly controlled and adhere to adopting bidding, auction and listing way of allocating land. This measure had standardized the market trading rules of state-owned land and clarified the state-owned land trading mechanism and price mechanism as well as promoted the rapid increase of land transfer prices and areas in China. The government's absolute monopoly of urban state-owned land has been henceforth confirmed, as it opens the door of "earning from the land" for local governments. It was roughly during this period this type of land finance start to dominate in capital accumulation.

Discussion

During this period, with the continuous advancement of space commercialization and market-oriented reforms, local development was no longer satisfied with just simple industrialization strategies and urban construction was no longer limited to the construction of development zones. The need for capital requires developing space more

comprehensively. The all-round development of space had triggered the influx of both foreign capital and domestic capital from financial institutions or other channels. Therefore, the fact that China's economic growth after 2003 was not caused by the development of the real economy rather more because of the financialization of land and real estate, had become more evitable and convincible. This was attributed to the collaboration of local government and financial capital, which means the huge increase in land sales led to the dramatic expansion of the real estate development and urban area. Correspondingly, China's urbanization is always being called the urbanization of land. At the same time, the comprehensive marketization of housing allocation, as well as the establishment of the "bidding, auction, and listing" land transfer system, have significantly changed the logic and performance of urban space construction in China. If the new establishment of the land use system is to convert productive land into fixed capital, so that part of the space would be included in the capital circulation of industrial production, then the housing commercialization and land transfer system reform will further transform the urban living space into "durable consumer goods" that would be included in the transaction market. Hence the scale of space commercialization and marketization has greatly expanded. In short, in the transition period from the planned economic system to the socialist market economic system, urban construction and space utilization are gradually emerging. Accompanied by the spatial transfer of international capital, space is gradually incorporated into the market economy in different fields in terms of getting more closely in depth and breadth with capital. That embodies the characteristics of space production which has become an indispensable force in the process of capitalized urbanization. As a result, we say that China's urbanization has gradually entered the process of the urbanization of capital. Some people think that the reason for the acceleration of China's urbanizing process is the growth and expansion of the real estate industry. Although to some point this makes

sense, but as far as i am concerned, it is not the dominant factor for China's large-scale rapid urbanization because the fast-growing real estate industry is not a cause, instead is a consequence of the combination of land and capital. As I mentioned in the aforementioned discussion, in the process of reform and opening up, Chinese cities have adopted capital and land alliances to achieve space production. Even from a global perspective, space urbanization echoes the rhythm of global capital circulation and accumulation. From this point of view, China's rapid urbanization practically follows the logic of capital.

6.1.3 2008-present

The secondary and the tertiary circuits coexisted in this period. Meanwhile, the property industry continued to heat up and the pace of industrial transformation is accelerating. According to Harvey's theory, in terms of fixed capital, a large amount of construction investment in the secondary circuit creates a large number of physical assets which have a long value transfer period. If those capital embedded in physical assets could not fulfill the value transfer in a particular period, then it would hinder capital accumulation and the secondary circuit would inevitably become saturated, resulting in crisis of over-accumulation and depreciation of fixed assets and consumption items, for example, a large number of factories and companies would close down; urban housing vacancy rates would be too high and so on. One of the solutions mentioned by Harvey is to transfer capital to the tertiary circuit. It is an important embodiment of capital entering the next circuit. In China, capital entering the tertiary circuit is concretely reflected in industrial transformation, increased investment in science and technology research and development. As the global spread of economic crisis that began in the United States, however, we cannot completely attribute the motivation of capital entering into the

next circuit to the saturation of capital in the secondary circuit, instead, the financial crisis was one of these influnecing factors as well.

Starting with the 2008 financial crisis, the global economy entered a cold winter. At this time, capital was cautious on a global scale. With the gradual demise of the demographic dividend, the production costs of enterprises in China had gradually increased, which led to the gradual decline of China's export-oriented economy. Affected by this, China's import and export business had experienced large fluctuations, which in turn had an negative impact on the entire national economy. The state government had to advocate industrial transformation and innovation as well as new types of urban developmental pathes after recognizing the traditional development model was unsustainable. During 2008-2017, according to China Statistics (National Bureau of Statistics of China, 2018), China's R&D expenditures increased year by year from 461.6 billion yuan in 2008 to 176.61 billion yuan in 2017, far exceeding the average growth rate of GDP; the proportion of R&D expenditures to GDP also increased from 1.47% in 2008 to 2.13% in 2014; in terms of education investment, it reached 3888.84 billion yuan in 2016, accounting for 20.7% of the total fiscal expenditure in that year; affected by this, China's R&D full-time researchers raised remarkably as well, China had 4.034 million full-time R&D researchers in 2017 with about 150,000 people added each year in recent years. All of the above data indicate that China is paying more and more attention to science and technology research and development, actively implementing various transformation strategies and has achievied periodical results, and most importantly capital has begun to enter into the tertiary circuit.

Nevertheless the secondary circuit continues to exist and still plays an important role in shaping urban space. The reform of tax sharing fiscal administration system in 1994 was a turning point which made most of the

local finances concentrated in the central government. Local governments thus had to turn to land sales to balance the fiscal budget. Therefore, the proportion of land sales revenue to local general budget revenue increased year by year in recent years. This convenient way of earning revenue had spurred local governments to further expand the scale of urbanization which in turn speeded up the land transaction. In order to acquire capital more easily, local governments started to explore the land use right mortgage mechanism, a new model that obtains loans directly from banks through land credit and mortgage. Under the increasingly strengthened financialization of land, capital demand has prompted cities to increase land mortgages. At present, the overall size of the national land mortgage financing had been much higher than the land transfer income. In 2011, 30% of the urban construction funds in eastern cities was land transfer income, 60% of which was land mortgage financing; in western cities, 20% was land transfer income, 70% came from land mortgage financing (Huang, 2013). The total amount of land mortgage loans in 84 key cities in China reached 352 million yuan, a year-on-year increase of 35.3%, exceeding the growth rate of fixed assets investment in the same period (Tian and Zheng, 2011). According to data released by the National Bureau of Statistics of China (2018), China's urban fixed assets investment in 2017 was 64.12 trillion yuan, of which the national real estate development investment was 10.98 trillion yuan, accounting for 17.1% of urban fixed assets investment. It is now obvious that the essence of land finance is the system that uses the land as a credit basis, which has become a powerful impetus and the most critical factor for China's urbanization. Local governments have greatly accelerated the process of urbanization through land finance. So, we can say, the Chinese-style growth machine, formed by the interaction of government, financial institutions, and developers, has played a leading role in the process of space production.

6.2 Summary and Discussion

Generally speaking, with the gradual deepening of reforms, China's urbanization process to a large extent has been dominated by the logic of capital. This motivation can be used to explain the circulation of urban construction funds and the unprecedented prosperity of the real estate industry. Learning from Lefebvre, we know that the production of space is a politically and economiccally sophisticated process. No matter the space production within cities or the expansion of new urban areas are all integral parts of this process. After local governments got the land from the rural area, China's urban construction has formed a capital cycle with "infrastructure investment — investment promotion — taxation — infrastructure reinvestment". Correspondingly the process of urbanizaiton has been materialized into the production of space, following the logic of capital and pursuing the value-added of capital. In this sense, China's rapid urbanization can be described as the urbanization of capital.

In addition to looking at capital circulation in city level, we also could eximine this process in a global perspective. With this view, the opening up has enabled China's industries to participate in the global capital circulation, partly leading to the transformation from the planned economy system to the socialist market economy system. Because China's reform and opening up and rapid economic development are just catching up with the world trend of economic globalization and urban internationalization. Since the 1960s, western capitalist society has undergone structural adjustments due to the continuous decline in the profitability of the manufacturing industry and the arising force of labor union. According to Harvey's view, the spatial transfer of international capital is just the embodiment of the spatial fix. When international capital urgently needed to find new value-added space, with the intention of exploiting the comparative advantages of labor and land prices in developing countries to develop labor-intensive industries and develop

new production base and consumer market, it was at this point that China opened its gate. The spatial fix of capitalism first saw China's huge economic development potential and consumption prospects. At the same time, the price of land in China was really low or even for free, which along with a huge low-cost labor force intensively attracted both international and domestic capital. In this process, China's production factors combined with the excessive capital and technology from the West have made China quickly become a "world factory". Therefore, China's industrialization is coupling with the de-industrialization of the West. Yet the process of space production at this stage is not significant.

Subsequently, due to multiple reasons such as capitals'profit tendency and the objective need of the central government to resist the financial crisis, the fix method had no longer satisfied the simple expansion of the reproduction. As more and more capital penetrated into the field of the urban built environment. With a series of reforms aiming at housing commercialization to get more capital, from the late 1990s to the present, the way and purpose of urban land development have undergone fundamental changes. As Harvey said the previous non-privatized assets released by reform and opening up have become the main source of capital accumulation (Harvey, 2003: 149). Urbanization has produced "land dividend" under the logic of space production. Local authorities are transferring land on a large scale to earn land dividends after getting land from rural collective land with relatively low compensation fees to peasants who lost land. Local governments then sell them to real estate developers or get mortgages from banks to earn land dividends. The basis for the existence of land dividends is the artificial monopoly of the land market. So far China has experienced three forms of land transferring, one form of land transferring is to obtain demographic dividends and taxation, another is to directly acquire the land-transferring fees for local fiscal revenue, the third is to financialize land to get mortgage loans. While

unlike cheap labor sources supported by demographic dividends, it is these cheap land sources that support land dividends. This huge difference in land price between the market price and the original low price in the rural area gradually make authorities and developers to encroach on more and more rural land. At this stage, space production updating from the subordinate position of industrialization thus became the driving force in the development of national and urban economy.

As suggested above, capital circulation in China has some identical features with Harvey's secondary circuit. However, the difference between the two is that the role of local government in China has to some degree dominanted this circulation process. From the above analysis, we can find that in addition to the central government's policy making, governments at all scales are an important driving force for China's rapid urbanization. In terms of spatial planning, banking supervision, and industrial policies, the central government formulates overall goals and regulations for social and economic development. The local government is responsible for the local economy, by means of allocating public land to build infrastructure and public facilities, attracting industrial investment at low land prices, or selling commercial and residential land to develop real estate, facilitating the capital accumulation and circulation in the three circuits.

7. Comparison between of Chinese and Western Models

Although China's urbanization road is subject to the logic of capital to a certain extent under the conditions of market economy, the most essential difference with western urbanization road is that western urbanization is mostly driven by industrial motivations under the market economy system, with capital logic as the essence. While China is more presenting the government-led urbanization road favoring cities other than rural areas through land finance under the urban and rural dual-division system. Through looking at the internal law of China's urban development since

the reform and opening up, it is found that the external representation of cities is basically consistent with of the three circuits theory, showing the characteristics from industrial dependence to the built environment investment and scientific and technological research expenditure. However, there are still some discrepancies between the two models. In general, the three circuits of capital is driven by the inherent pursuit of capital, yet the Chinese urban development path is the manifestation of China's special political economics that leads to special capital accumulation and circulation model.

7.1 Sources of Capital

Within the primary circuit of capital, sources of capital used for industrialization are different from what Harvey depicted in western capitalist countries. China's capital mostly comes from foreign capital surplus and domestic capital that was previously suppressed by the political and economic situations. As discussed above, in the 1980s, after the reform and opening up, China undertook the spatial fix of capital from western developed countries, coupled with cheap labor and unmarketed land, making Mainland China as a dreamland of receiving global surplus capital. At the same time, due to the tense political situation of the Cultural Revolution in the previous decade, many capital holders held a wait-and-see attitude. Thus, once the reform began, there was a surge of domestic and foreign capital coming into the country. In the early days of China's real estate industry, investment in the construction industry and real estate industry increased as foreign capital and private capital that had been suppressed were gradually allowed to enter since the 1980s. What is more, due to introducing foreign capital into these earliest cities that were set to be open to the outside world, the bottleneck problems in the manufacturing industry had been solved at that time, significantly promoting the city's economic level. Therefore, in the early stage of reform

and opening up, traditional industrial sectors experienced a rising trend with the massive capital influx and government support. This is inconsistent with the premise of over-accumulated industrial capital in Harvey's primary circuit.

7.2 Motivation

The motivation for capital to enter into the next circuit is different. In China, the incentive to increase investment in the built-in environment is to increase the attractiveness of urban investment and continue to promote industrialization. Although the economy has improved after reform and opening up, industrial capital is far from reaching the level of excessive accumulation. On the whole, the profit rate has not begun to decline, not to mention the overall average profit rate of the whole country. At the same time, the obvious mismatch with the economic level is the serious lag of infrastructure. The backward facilities such as transportation, ports, and airports have largely restricted economic growth. One of the reasons is that the corresponding capital generation and accumulation mechanism for urbanization has not yet been established (Yue, 2016). As central and local governments are gradually aware of this problem, a set of rules and regulations aiming at commercializing and marketizing land and real estate is then followed by. We find out that the subsequent construction of the urban environment began when complete industrialization was not fully achieved since the initial purpose of urbanization is to develop the local economy by assisting industrialization. This is not the same as what Harvey said, to ease the declining average profit rate in traditional industrial sectors, surplus capital investing in the secondary circuit comes from the primary circuit. In other words, this is inconsistent with the motivation of capital circulation from the primary to the secondary circuit.

In addition, when capital entered into the tertiary circuit, it was the external factors such as the global economic downturn which stimulated the capital circulation. With considering the international background, the influence of the central government's policy orientation should not be underestimated, because policy factors have always played an important role in fueling urban development in different stages. On the one hand, government determines when and how to terminate or promote a particular level of capital circulation by enacting series of orders such as "development zone rectification" or "real estate system reform"; on the other hand, for the sake of seeking political achievements, sometimes governments could rely on the administrative system for cost transfer to mitigate contradictions within circulation (He, 2012). This is manifested in the 2008 global financial crisis when the intensification of contradictions is difficult to cover up, governments have to rely on tough administrative means to promote capital investment in both the secondary and the tertiary circuits. It is because of the contradictions between governmental policies and the nature of capital competing in each stage so that capital might present out atypical logic as it uesd to be. Therefore, the upgrading and transformation of some cities should not be entirely attributed to the over-accumulation of capital in the secondary circuit. From this perspective, it is not completely consistent with the motivation in the Harvey theory.

7.3 Capital Accumulation

The way of capital accumulation is different since local governments have played a major role in three circuits circulation. Land finance is a tool for local governments to accumulate capital. The local government's absolute monopoly on land and the deprivation of rural land have led to a unique way of capital generation, accumulation and circulation not as described by Harvey. In China, land ownership belongs to the state, and the right to

use can be bought and sold. In the late 1980s, relying on the agricultural sector for industrialization has become unsustainable. Shenzhen and other special economic zones tried to finance the infrastructure construction by transferring urban land use rights. As a result, China's urbanization model has produced a major breakthrough. With the implementation of the taxsharing reform, the problem of lack of local fiscal revenue capacity has quickly emerged, and local governments have experienced an unprecedented financial crisis. It is also at this point that the state has begun to try the system of paid use of urban land on a large scale, providing a choice for local governments to obtain more benefits. The market-oriented reform of the land use system opened up a new channel for capital generation and accumulation. From then on, it created a unique road that uses land as the basis for credit and accumulates the original capital of urbanization, which is called land finance. With the reform of the housing system and the bidding, auction and listing of land system (the seller deciding the market), land finance has been continuously strengthened. Local governments with a large reduction in tax revenues, instead, have quickly become rich. The rapid expansion of land finance helped governments accumulate original capital at an unprecedented rate. According to the "China Land and Resources Statistical Yearbook" edited by the Ministry of Land and Resources (1998-2015) and the National Bureau of Statistics website data, researchers (Long, Fu, and Liao, 2016) from Department of Construction and Real Estate Management of Chongging University calculated that the national land transfer revenue was only 50.8 billion yuan in 1998, but it reached 4.37 trillion yuan in 2013, an increase of 86 times in 15 years; land sales revenue was equivalent to 10.19% of local fiscal revenue in 1998, and in 2010 it reached 67%; fiscal revenue which also includes business tax and construction tax in the process of land and real estate development exceeded 1 trillion yuan in 2012. As we may know land finance is not belonged to China though, the US federal government also relied on land finance to privatize land since

the founding of the United States. China's urbanization backed up by land finance under socialist market economy seems to have more of its own characteristics.

So why is socialist China able to follow this path? In my opinion, this is because the urbanization of urban land and the collectivization of rural land established in the planned economy period create conditions for governments to monopolize the primary land market. The role of land finance is to use the market mechanism to transform this hidden wealth into a huge amount of capital to start China's urbanization (Zhu, 2012). Usually, as city governments with private land system, the way of getting back the money investing in public service have to be firstly transferring those land to landowners in the form of the already appreciated property and then collect tax from it. Thus, the efficiency of tax finance depends almost entirely on taxpayers. But under the conditions of public ownership of land as in China, any improvement in public services will be reflected in state-owned land. The government could use state-owned land as collateral for loans to invest in public services and then recover the spending directly from land appreciation without relying on taxation, as a result, relative to the taxation approach, the efficiency of selling appreciated land is so high that not only can governments finance infrastructure constructions, but also finance projects with ongoing taxes, even subsidize these projects (Zhao, 2014). This unique system of state ownership inherited from the planned economy has made land a constantly valued source of credit for local governments in China. Different from the practice in some western countries issuing mortgages of municipal bonds, the essence of China's land revenue is to finance the one-time investment of urban public services by selling the value of appreciated land in the future (Zhao, 2014). That is to say, the essence of selling land for Chinese local governments is to directly sell future public services.

7.4 The Path of Capital Circulation

The path of capital circulation is different. The capital flow in China is a closed circulatory system. From the above analysis, we know that the land financial mechanism is a very important channel of capital accumulation for urbanization. Through land finance and real estate taxation, the local government has established a rapid way of accumulating capital. By speeding up government investment and activating the three circuits circulation, capital in the three circuits goes as follows. Firstly, the real estate and urban construction undergoes rapid development in the secondary circuit. Hence public infrastructures have been greatly improved, such as airports, high-speed railways, urban rail transit, and roads. Due to the construction of supporting infrastructure and the improvement of public services, however, the value of urban land has been greatly enhanced, which to some point indirectly has led to high housing price. Secondly, in terms of the tertiary circuit, local governments have strengthened their investment in education, science and technology, and public services such as hospitals, schools, nursing homes and so on. Thirdly, in terms of the primary circuit, revenues from land are often used to subsidize manufacturing sectors. In the transfer of state-owned land use rights, the price of industrial land is much lower than the price of residential and commercial land. Local industrial land is still mostly transferred by agreement. The income from sales is even lower than the cost of compensation and infrastructure, especially in some small and medium-sized cities in the central and western regions, some industrial land has zero land price and even reduced business tax for certain years (Yue, 2016). These facts fully demonstrate that the local government is subsiding the transfer of industrial land, thereinto, these funds always come from the transfer of residential and commercial land. In short, the

local government closes up this capital circle in terms of injecting capital back into the primary circuit to form a closed loop system.

In summary, through the capital flow of land finance, capital accumulated in the manufacturing sector (commodity production) and in the urban built environment (space production) are thus combined to form a closed loop system. Local governments usually benefit from both the land transfer and land finance revenue by monopolizing the primary land market. Thereby, the initial accumulation of urban capital is created, the profit from which are on the one side investing in large-scale infrastructure construction and public services, increasing the potential value of land; on the other side, subsidizing for manufacturing industry, creating new channels for capital accumulation while creating sustained demand for real estate market stability and maintaining land finance mechanism. As a result, regarding circulating form, it is different from the three circuits theory proposed by Harvey which is one-way.

7.5 The Form of Urbanization

Capital accumulation and circulation model based on land finance is different from Harvey's theory in interpreting the spatial process of urbanization. Harvey's primary circuit explains the centripetal urbanization process of population and industrial agglomeration. And the capital flowing from the primary circuit to the secondary circuit was the main reason for the large-scale suburbanization of the United States after World War II (Harvey, 1978: 102). Through directing capital from the manufacturing industry into the built environment, capitalist society could avoid crisis caused by excessive capital accumulation in the primary circuit. Meanwhile this capital transferring would make the real estate industry and the infrastructure construction sector require more industrial products, which results in massive urbanization in the outskirt of cities.

Therefore, the crisis of over-accumulation of capital in traditional industrial sectors has been corrected by space production in suburban areas. In China, however, due to the convergence of land finance and manufacturing sectors as being a new model of capital accumulation and circulation system, both centripetal urbanization and suburbanization has occurred. This phenomenon has been called "spatial compression effect" by professor Yue (2016) from Department of Land Management, Zhejiang University. At the end of the last century, China's urbanization was still in the stage of centripetal agglomeration, but some large cities, such as Shanghai, Beijing, Guangzhou, Shenyang, etc., have experienced typical suburbanization (Xu, Zhou and Ning, 2008: 126). At the beginning of the 21st century, due to the increasing cumulative contribution of capital created by land finance, many cities have accelerated developing suburban areas. A large number of development zones and new towns appear in the suburbs of cities. Therefore, the typical feature of China's spatial urbanization process is the superposition of centripetal urbanization and suburbanization.

8. Land Finance

8.1 Land Finance and the Urbanization of Capital

The rapid urbanization process in China since the 1990s is actually a process of capital urbanization, of which both the external phenomenon and internal mechanism of urbanization show obvious characteristics of the transition times. Space production has gradually become an important force to promote urbanization. Moreover, land finance combined with capital logic and interest games dominates the urbanization of capital. According to the previous comparative analysis of Harvey's capital accumulation and circulation theories, we notice that China's special political and economic situation has facilitated the generation of land finance that has brought huge fiscal revenue, GDP growth and official

achievements to local governments. Therefore, local governments' interest in urban expansion and land development is sometimes greater than that of in industrialization and manufacturing development. This way of capital accumulation has already become one of the main drivers of urban space construction. However, urban expansion and land development by local governments are still carried out under high debt. Before the land is transferred, the local government needs to first acquire land and carry out infrastructure construction such as roads and municipal facilities. This is often difficult to pay with budgeted finances, thus most of the funds are secured through bank loans of mortgages on land and its future earnings. According to Jiang and Liu (2007), by 2006, about 60% of infrastructure investment in the southeastern coastal counties relied on land financing and in the western regions, bank loans accounted for 70%-80% of urban infrastructure investment. This is no wonder one of the reasons why the debt level of China's local governments is so high. But why are commercial banks facing almost uncollected loans still willing to lend out those money? The answer I think is closely related to the logic of capital.

Firstly, the logic of capital is always to flow towards the place where the highest profit is. With the huge appreciation of land in the process of urbanization and the large supply of land by local governments, capital has combined with land, making the real estate industry a profiteering industry. As long as housing prices continue to rise, funds will continue to flood into and boost housing prices. From 1998 to 2011, the operating profit of real estate enterprises was 2.7 trillion yuan, of which the operating profit from 2003 to 2011 reached 2.66 trillion yuan (Li, 2013: 10). The high profits continue to appeal personal capital, private capital and state capital from the manufacturing industry to the real estate sector. In particular, the national 4 trillion yuan economic stimulus plan in 2008 further boosted local investment and strengthened urban space

production. These measures might lead to the consequence that economic growth is over-reliant on investment.

Secondly, the financialization of real estates would cause risk shifting to individual investors. Commercial banks and financial institutions tend to lend out large amounts of money to real estate projects such as urban construction and then design a set of processes to package these real estate projects into financial wealth management products (Li, 2013: 10). That transfers the investment risk to individuals who purchase these wealth management products. With the backing from the central bank, it does not matter for these commercial banks whether the local government can repay the loan or properties can be sold out because they can always get profits from interest incomes. Under such circumstances, urban space construction has become a financial product, the object of investment by social funds for profit. As long as housing prices continue to rise, there will be more and more money to follow up. This also further illustrates why many third and fourth-tier cities without industry and population support are still experiencing space production. Urban space construction has obviously presented typical virtual economic characteristics in China.

After analyzing the capital logic of land finance, we found out that there is a spatial capital circulation based on land finance as the core. Local governments are willing sell industrial land at a low price to attract industrial investment. That is because the growth of local industries will drive the development of the service sector and the increase in demand for land in order to obtain the relevant business tax, commercial and residential land transfer fees and other fiscal revenues. It will work as long as these revenues can exceed the cost of land acquisition and infrastructure expenditure. Apparently, this approach is mostly counting on the spillover effect of local industries (Tao and Wang, 2010). As the

growth rate of commercial and residential land transfer fees far exceed that of industrial land, while industrial land suffers short-term losses, the local government must promote the growth of the tertiary industry and real estate industry to balance revenues and expenditures. Therefore, there is a direct capital circulation for the purpose of rapid capital accumulation when the governments transfer high-priced commercial and residential land or finance through land mortgage loans. Providing financial support and financing for infrastructure construction and other public goods and services is an important public function of local governments. Therefore, both the low-cost supply of industrial land and the demand for urban public goods have deepened the dependence on the high prices of commercial and residential land. Correspondingly, land finance constitutes the most direct and core path for the short-term realization of the original accumulation of capital.

8.2 Risks Arising from Land Finance

In the face of the increasingly hot land-centric capital urbanization, many scholars have discussed this phenomenon. Shao Chaodui (2016) studied the influence mechanism between housing prices, land finance, and urban agglomeration through analyzing 282 cities in 8 years, then he concluded that land finance would inhibit the development of urban diversity and have a negative impact on urban agglomeration, especially when the governments over-intervene the market. Professor Cai and Cheng (2010) believe that the government as the sole supplier of the land market has a two-way monopoly on land prices (that is the government can lower the land price in order to levy the land on the one hand, and on the other hand increase the land transfer fee for urban construction). Such behavior will not only damage the peasants' land rights but also lead to the waste of land resources and the city's real estate bubble, causing an imbalance in the price ratio between agricultural land and non-agricultural land. Zhao

and Feng (2017) believe that although land finance provides original capital for China's urbanization process and economic development, various drawbacks have begun to appear as time goes on, gradually hampering the development of urbanization. After sorting out and analyzing some existing literature, I find that there are multiple existing or potential risk factors in China's capital urbanization relating to land finance.

8.2.1 Industrial Risk

Land finance did boost the real estate sector in the past three decades. Yet the real estate industry as a pillar industry is not conducive to the adjustment and upgrading of the industrial structure. Zou and Liu (2015) believe that land finance can promote economic growth and urbanization in the short term, but it is easy to restrain the development of the tertiary industry. This will lead to the inability to allocate resources effectively. Indeed, if the influx of large amounts of capital from the real economy into the real estate industry would lead to the real estate bubble, squeezing the space for the development of other real industries and tertiary industries, the development of the economic and industrial structure will be impeded to some degree. The negative effects are manifested in the following aspects: on the one hand, although the real estate industry has the characteristics of a long industrial chain and a relatively obvious effect of economic growth, most of the industries boosted by it are those industries that produce low value-added products, especially the ordinary construction material industry rather than high-tech industry. On the other hand, it is just because the short-term benefits of the real estate industry are more significant, which also makes local governments reluctant to invest more human and financial resources in developing high-tech industries requiring a long R&D period but without obvious short-term benefits. Therefore, the real estate industry as a pillar industry would barely help adjust and upgrade China's industrial structure and might, in

turn, lead to the mismatch of economic resources and the imbalance of industrial structure.

8.2.2 Fiscal Risk

First of all, land finance is unstable and unsustainable. Based on Marx's value theory, an important principle of commodity exchange is equivalent exchange. That is price always fluctuates around value, but for all price is still the embodiment of its inner value. Nevertheless in the short term, it is normal for commodity price to go up and down, the long-term deviation is unsustainable, and the final price will be unified with the value, what is more, artificially creating high or low prices will cause oversupply or shortage of supply in the market, disrupting market order and affecting economic development (Wang, 2009). Likewise, the real estate market also has cyclical changes. When the market changes, the original supply shortage may be transformed into oversupply, which might endanger the bubble economy in the property market.

Secondly, as for land finance, a considerable part of the city construction funds is indirect finance that is obtained in terms of bank loans with government credit as a guarantee. If the land transfer goes smoothly and the price is high, the local government can repay the loan through the land transfer income. Whereas if the land transfer price is relatively low and the ability to repay the loan is limited, the local government thus have to resort other means to obtain financial income. In fact, the scale of mortgage loans based on government credit usually tends to exceed the scale of local government fiscal revenue. Once the expiry date of the mortgage loan comes, the government will face serious financial security problems, which will threaten the healthy development of the city. In recent years, the debt balance of some regional local governments has far exceeded its comprehensive financial capabilities, and the city is facing a

crisis of "bankruptcy". This phenomenon is particularly evident in third and fourth-tier cities. Nationwide, the land area of 84 key cities reached 348,700 hectares by the end of 2012, and the total amount of mortgage loans reached 5.95 trillion yuan (Huang, 2013). This phenomenon has even aroused the attention of the international community. The International Monetary Fund (IMF, 2013) pointed out that China's current economic growth is over-depending on the continued expansion of investment, mainly in the real estate sector and local government investment. IMF also mentioned that there is a survey found that 80 % of the cities would sell land to pay their debts. Also because of the ambiguous boundaries between local governments and companies, the scale of loans and its potential impact on government liabilities are difficult to estimate. In the medium term, especially in the context of rapid urbanization and rising demand for related payments, local government debt problems will be an important source of fiscal risk.

8.2.3 Financial Risk

Due to the lag of financial reform, China's financing channels for real estate development are narrow, and equity financing is limited. Basically, bank credit is the only way for financing all kinds of property related activities such as property mortgage, purchasing properties, raising investment funds, etc. Overall, real estate development is highly dependent on bank funds (Chang, 2010: 73). A huge amount of money injecting into the property market would cause over-investment and an unbalanced market. What is more, when the banking industry starts to join in the real estate credit there is no perfect financial infrastructure and anti-risk ability yet, which makes the real estate industry vulnerable to potential risks. Since China's real estate industry has just engaged in and has not yet experienced severe market fluctuations, once the housing prices or the demands fluctuate dramatically, the operating risk of real

estate companies would be turned into financial risk due to that they do not have the capacity to repay the loans. By then, a lot of bad debts would be created, which will cause the banking system to bear huge financial risks.

It is worth noting that in the process of land commoditization, marketization and financialization, the debt risk brought by land finance is not limited to local governments. Actually, the risks are greatly socialized. On the one hand, the capitalization of land boosts the rapid rise of real estate prices and increases the expected return on real estate investment, getting the public involving into the speculative activities and triggering a large-scale of real estate speculation phenomena(Peng, 2013). In other words, real estate has deviated from the rigid demand for housing in society. On the other hand, the conversion of debt into various types of wealth management products sold to ordinary people undoubtedly passed the risk of land financing to society. As discussed in the theory section, asset-based land and housing itself do not reflect actual demand, and the revenue of some wealth management products is premised on the rise of real estate prices and land prices, lacking rigid demand support. Essentially it is a speculative profit-making activity characterized by compound interest. For a long time, land finance has supported the capitalization of Chinese cities and promoted the progress of China's urbanization process and the development of the socialist economy. However, as the central government tightens financial policies, it is increasingly difficult for local governments and real estate enterprises to obtain loans directly from banks. The land finance that once supported the urbanized benign capital circulation has been transformed into a particular approach which absorbs social capital for urban construction. As the strengthening of the financialization, more and more social members are attracted to participate in land and property speculation. Urban construction has gradually become a field of capital competition.

8.2.4 Social Risk

In the process of promoting urbanization, local governments have expropriated a large number of low-cost rural collective land and then sold at high prices to maximize land revenue. Such high land prices will inevitably lead to the emergence of high housing prices, widening the gap between the rich and the poor and accelerating the emergence of social stratification. The compensation received by farmers during land acquisition only accounts for about 10% of the value-added income of the land (Chang, 2010: 73). After receiving a small amount of compensation, farmers inevitably face difficulties in their livelihood. More and more farmers have become vulnerable groups who have lost their land and are unemployed. The unequal status of the property rights in the land acquisition and the unfair trade make farmers lose the value-added income derived from land transactions. At present, the housing price-toincome ratio in most cities in China is around 10, much higher than the standard level of 3-6 in the world (Zhao and Feng, 2017: 52). We have realized that the essence of land finance is to solve the financing problems of local governments, which determines that the land and the property based on the land price also have financial attributes and inevitably becomes investment products. Although the state has promulgated some bans on real estate speculation, as long as the land finance is still the main source of local government revenues, the price of land will not decrease excessively, and the real estate will always have financial investment attributes, subsequently capital will continue to flow into the real estate market (Zhao and Feng, 2017: 53). Therefore, the government's policy of suppressing housing prices has barely effects in the long run, and the decline in housing prices is only a short-term phenomenon of market volatility. Land finance is actually equal to the dual exploitation of the interests of farmers and urban residents.

The above is the hidden risks brought by the core issue in the process of China's capital urbanization - land finance. These risks should not be underestimated, because they might hinder China's future political and economic development. The step-by-step development process of land finance also confirms China's gradual shift from the construction of the socialist countries in the Mao era to the process of capitalization of housing and land market since 1978. It can be said that land finance is actually the embodiment of political and economic activities in China's transition period. To be more precise, land finance is the result of games played by the central and local governments in terms of system implementation, administrative power, and fiscal distribution.

9. Conclusion

By studying Harvey's urbanization related theories, we understand that Harvey regards the city as a product of capitalist economic activities, which forms a rule on the production organization and reflects the material form of capital expansion. Therefore, space is shaped and submitted to the logic of capital. Likewise, the production and construction of the urban environment also follows directly the realistic requirements of capital accumulation. Harvey establishes a capital circulation model to clarify the relationship between capital and urban space construction. Among them, the distinction between the first two circuits reveals the capitalization path of urban space. He considers that investing capital in the secondary circuit determines the formation of the urban environment, the result is space has gradually become a commodity, then spontaneously integrated into capitalist production. Harvey also believes that the secondary circuit strengthens the dominance of financial capital. In general, the urbanization of capital, the product of capitalist social relations, can be seen as a form of social structure in line with the dialectical logic of space production. When we look at and judge Harvey's rationality and limits on

the urbanization theory of capitalist countries, we must accurately grasp its theoretical core and deep logic. Harvey's theory is not only the innovation of the concept category but also the reshaping of the theoretical system, the core of which lies in its accurate grasp of the urbanization problem. In addition to having a uniquely critical role in real society, these explorations provide an important perspective and method for us to recognize contemporary capitalism. The new Marxist space theories, as a political economic theory tool, provide a new perspective for examining the complexities of China's urbanization path. Since the reform and opening up, China's urbanization process has been accelerating under the external influence of capitalist globalization and the interweaving of internal political and economic actors. One of the concerns we came across regarding Chinese reality is how and to what degree can Harvey's urban theories be applied to the urbanization in China under the condition of the socialist market economy?

In order to fully evaluate the feasibility of the application in China, I reviewed the relevant government policies and regulations since the reform and opening up in 1978. Despite that I might neglect some minor factors by only focusing on the main policies, I strive to grasp the key nodes and intrinsic nature of China's rapid urbanization process. As to those special zones in the early days of reform and opening up, the central authorities decentralized their power discreetly to the localities in spite that this kind of freedom on the whole level was still under the framework of authority. Subsequently, the tax-sharing fiscal system which began in 1994, was based on an adjustment of the central and local relations of fiscal distribution. The constraints and incentives of political centralization and fiscal decentralization reflected in this adjustment had stimulated the initiatives of local governments. In addition, the reform of the housing system in 1998 can be seen as an institutional re-adjustment of the position of the capital space in the face of the financial crisis, providing

channels and space for the more productive real estate industry. The urban policy oriented in creating effective demand rose to the core policy level for the first time. In the following 20 years, a large number of speculative activities occurred in China's real estate and land markets. The transformation of rural land, the privatization of housing property rights, and the virtualization of financial capital caused a large influx of excess capital into the above-mentioned markets, resulting in a serious bubble trend. From the perspective of space production, the rapid urbanization development in China is actually a process of continuous commodification of various production elements in space. It is a process of urbanization dominated by capital logic and interest games. Through the analysis of policy orientation and corresponding influence since the reform and opening up, I have seen how China is progressively developing urbanization along with the logic of capital. Since the implementation of the opening-up policy, a large amount of international capital has been imported for the urgent need to transfer. When the externally imported and domestic excessive capital continues to gather in the city until up to a certain level, inflation and speculation will inevitably occur. This financialized urban space production has changed the creation of surplus value and the way of capital accumulation, profiting from labor value to capital interest. In this sence, the model of space production and capitalization happened in developed countries has been to some extent copied and repeated in China. Although I do not have enough empirical materials, rigorous data and model to support my research, I just have identified the basic role orientation of the land and space of Chinese urbanization, through existing materials and historical perspectives, is to a great extent consistent with Harvey's claims.

However, I also found that the development of urbanization is inseparable from the logic of excessive capital accumulation but still cannot be completely covered by this single logic. Due to the different characteristics of different institutional and environmental conditions, the case in China seemed to have its own feature which may derive from its special political economy. So, to what extent does this Chinese-style urbanization deviate from the western model? After scrutinizing and refining relevant arguments, I compared the Harvey model to the urbanization model in China. There is one point beyond any doubt that, in China, both the central government and local governments have the undeniable power as many socialist countries have and use their own administrative power to fully penetrate into all aspects of urbanization. In addition to this, I found some discrepancies from the perspective of capital circulation. First of all, the accumulation of industrial capital in the primary circuit does not follow the expansion and reproduction of traditional capitalism. Its main sources include foreign excessive capital and some domestic capital with a waitand-see attitude. These capitals have helped the expansion of traditional industries and the rise of the construction and the real estate industry. Only through available materials, I cannot figure out either how much of the capital accumulated in the primary circuit comes from overseas investment and the original suppressed investment, or how much comes from the indigenous industrial accumulation. But it can be said that the cumulative capital benefiting from different accumulation channels has produced similar problems which is over-accumulation since some of them eventually enter into the secondary circuit in the end. This is consistent with Harvey's theory, even though the initial capital sources are different. In the next place, the government played a key role in helping capital get into other circuits because China's urbanization lags far behind industrialization, which affects the city's attractiveness to capital. This is different from Harvey's theory which states easing the declining profit rate is the purpose. It is true that even in developed capitalist countries, city governments still want to improve the competitiveness of cities through urbanization. However, the gradual decline of the capital profit rate is still an indisputable fact in the traditional industrial fields, which greatly

promotes the flow of capital to the built environment in cities. In addition to the above discrepancies, the followings are inextricably linked to land finance - a very critical and inevitable problem in China. The absolute monopoly of local governments on land has become an effective tool for capital accumulation. For a long time, land finance has supported the capitalization process within the urbanization. On the positive side, the government with higher land revenues will spend more money back in the primary circuit represented by most traditional industries, as well as in the tertiary circuit, such as technology, education medical care, etc. This creates a closed circle through assigning excessive capital generated from the secondary circuit guided by governments. At the same time, the synergy between land finance and traditional manufacturing industry has presented a superposition layout of centripetal urbanization and suburbanization. The spatial capital circulation backed up by land finance just justifies the fact that China's rapid urbanization process has been dominated by capital logic, with which value appreciation has become the main purpose of space production. Consequently, urban construction and development based on land finance has deviated from basic needs, generating enormous risks in terms of industry, finance, and social development. In this paper, I have arrived at the conclusion that the western model and China's practice are still not identical in terms of policies and other aspects. For example, the problem of land finance is more prominent in China. Therefore, the future focus of my study would probably be on how to make China's urbanization road free from the constraints of land finance, providing a theoretical reference for exploring a new urbanization road that can transcend the traditional capital urbanization model.

Generally speaking, as far as I'm concerned that although Harvey has seen the uniqueness of China's urbanization to a certain extent, his grasp and research on the nature of China's urbanization is confined to the theoretical framework and model of traditional western capitalization. Therefore, in Harvey's view, China has embarked on the road of capital urbanization in a certain sense, and China's urbanization development has a huge impact on the global economy and the absorption of surplus capital. However, Harvey did not try to explore whether China's urbanization practice had a critical abandonment of the Western model, so that he might not correctly understand whether China could find the proper path beyond capital urbanization. As a result, I think it is inadvisable to underestimate the potential meaning of China's urbanization practice due to that he fell into a trap for neglecting the diverse and complicated nature of actual situations. Although those theories can roughly explain the process of China's capital urbanization, Chinese society has its own special features due to its special political structure and economic policies. Given the deepening role of China in global trade, the importance and attachment of capital and the law of economic development of capitalism determine that the urbanization of capital in China would probably get faster and deeper.

To summarize, it is necessary to go deep inside of Chinese social entities and be based on the historical practice when exploring the internal logic of China's urbanization. China does not have a society that is fully capitalized in the western sense, as this paper analyzes, because the relationship among the state, cities, and societies has a cultural tradition root that is completely different from Western societies. In this regard, urbanization with Chinese characteristics has both the essential provisions of the socialist system and the inherent logic of Chinese tradition. To a certain extent, the road to capitalization of China's cities thus reflects the unique historical traditions and realistic national conditions correspondingly. China has a large population and has been under the background of the transition period from the planned economy to the socialist market economy as well as from a traditional society to a modern society.

Therefore, the answer and response to China's urbanization issues must consider the universal influence of the global neoliberal economy, and fully recognize the particularities of China's urbanization roads and problems. The application and comparative analysis of Harvey's theories providing a theoretical reference paradigm for us to think about and examine the old urbanization model we used to have from a more inclusive and humanistic standing point instead of capital logic. Judging from the current development situation, the Chinese model of capital urbanization has a certain degree of differences, which provides us with new possibilities for future urban development. This possibility might be beneficial to overcome the practical problems brought by the traditional urbanization of capital, and from the perspective of urban civilization to facilitate the exploration of a more rational urbanization model and developmental concept.

Word count: 21485

Reference

- Baran, P. A. and Sweezy, P. M., 1968. *Monopoly Capital: An Essay on the American Economic Andsocial Order*. Modern Reader.
- Cai, J.M. and Cheng, S.Y., 2010. Two-way monopoly of land price and distortion of land resource allocation. Economic Perspectives (11):75-80.
- Central Committee of the CPC, 1984. Communiqué of the Third Plenary Session of the 12th Central Committee of the CPC. News of the Communist Party of China. [online] 12 Dec. Available at:

 http://cpc.people.com.cn/GB/64162/64168/64565/65378/4429527.html [Accessed 19 Feb 2019].
- Central Committee of the CPC, 1992. Communiqué of the Third Plenary Session of the 11th Central Committee of the CPC. News of the Communist Party of China. [online] 12 Dec. Available at:

 http://cpc.people.com.cn/GB/64162/64168/64563/65371/4441902.html [Accessed 19 Feb 2019].
- Central Committee of the CPC, 1992. Fourteenth National Congress of the CPC. News of the Communist Party of China. [online] 12 Oct. Available at: http://cpc.people.com.cn/GB/64162/64168/64567/65446/4441682.html [Accessed 22 Feb 2019].
- Chang, Z.Z., 2010. Real Estate Bubble, Financial Crisis and Adjustment of China's Macroeconomic Policy. Economist (7): 37-49.
- Clark, G. L., 1983. Book Review of The Limits to Capital, by David Harvey. [pdf] Annals of the Association of American Geographers. Available at:

 https://www.jstor.org/stable/pdf/2562734.pdf?seq=1#page_scan_tab_contents
 [Accessed 15 Mar 2019].
- Gong, J., 2016. A New Explanation of the Causes of Overcapacity System under the Guidance of Real Estate as Pillar Industry. Social Science Journal (4).
- Gottdiener, M., 2010. The social production of urban space. Translated by H. Ren., 2014.

 Nanjing: Phoenix Education Publishing, Ltd.
- Harvey, D., 1978. The urban process under capitalism: a framework for analysis.

 International Journal of Urban and Regional Research, 1978(2).
- Harvey, D., 1985. Consciousness and the Urban Experience. Oxford Basil Blackwell and johns Hopkins University Press.
- Harvey, D., 1985. The urbanization of capital: Studies in the history and theory of capitalist urbanization. Oxford: Basil Blackwell.
- Harvey, D., 2003. The new imperialism. OUP Oxford.
- Harvey, D., 2005. Neoliberalism: A brief history. Oxford University Press.

- Harvey, D., 2006. The limits to capital. Verso books.
- Harvey, D., 2010. A Companion to Marx's Capital. Verso Books.
- Harvey, D., 2012. Rebel Cities: From the Right to the City to the Urban Revolution. Verso.
- Harvey, D., 2014. Seventeen Contradictions and the End of Capitalism. Oxford University Press.
- Harvey, D., 2018. International Curriculum. Center for Studies of Marxist Social Theory (CSMST), Nanjing University, 5 May. (video online) Available from: http://ptext.nju.edu.cn/hw2018nnjdxkc/list.htm (Accessed 16 Dec. 2018).
- Harvey, D., Zhou, X., He, C.Z. and Yin, X.H., 2016. Spatial Transformation, Spatial Fix and the Globalizing China. Academic Research (8): 144-148.
- He, H.M., 2012. Limitation of Growth and Urbanization Transformation: Intertwined Logic of Social Transformation, Capital and Urbanization from the Perspective of Space Production (11): 91-96.
- Huang, X.H., 2013. New Land Reform: The government no longer operates land. Economic Herald (4): 26-47.
- International Monetary Fund (IMF), 2013. IMF talks about Chinese local government debt risk. China National Radio. [online] 3rd Jun. Available at: http://finance.sina.com.cn/world/20130603/100115676588.shtml [Accessed 10 Mar 2019].
- Jiang, S.S., Liu, S.Y. and Li, Q., 2017. Land System Reform and National Economic Growth.

 Management World (9), 1-9.
- Katznelson, I., 1993. Marxism and the City. Oxford University Press.
- Lefebvre, H., 1991. The Production of Space. Translated by D. N. Smith. Oxford: Blackwell.
- Li, A.L., 2013. Economical Rationales behind the Urban Spatial Construction in China during the Last 15 Years. Urban Development Studies Vol. 20, No. 11, 2013.
- Lin, G. C., 2010. Understanding land development problems in globalizing China. Eurasian Geography and Economics, 51(1): 80-103.
- Lin, G. C., & Yi, F. (2011). Urbanization of capital or capitalization on urban land? Land development and local public finance in urbanizing China. Urban Geography, 32(1), 50-79.
- Liu, D.S., 2016. The contemporary Interpretation of the Constitutional Amendment from the Perspective of Law and Economics. Journal of Henan Normal University (Philosophy and Social Science), Vol.43, No.4, Jul. 2016.
- Long, Q.M., Fu, H.Y. and Liao, Y., 2016. Capital Dilemma and Breakthrough Path of Urban-Rural Integration-Thoughts Based on the Western Marxism Theory of Three Circuits Theory. Rural Economy of China, Sep: 2-15.

- Luo, X.L., Zheng, H.Y. and Yin, J., 2011. "The Third Entrepreneurship" in the Development Zone: From Industrial Park to New Town: Taking the Transformation of Suzhou Industrial Park as an Example. Resources and Environment in The Yangtze Basin, 20 (7).
- Luxemburg, R., 1913. The Accumulation of Capital. Translated from German by C.S. Peng and J. X. Wu, 1959. Beijing: SDX Joint Publishing Company.
- Ma, G., 1987. The Reform of Land Management System in the Special Economic Zone is Imperative—Summary of the Symposium on Land Management System Reform in Shenzhen Special Economic Zone. Special Zone Economy (4): 21-22.
- Marx, K., 1946. Capital: A critique of political economy. Vol. III. Chinese translation, 2004. Beijing: People's Publishing House.
- Marx, K. and Engels, F., 1995. Marx and Engels Anthology (Vol. 2). Beijing: People's Publishing House.
- Ministry of Supervision and Ministry of Land and Resources, 2004. Circular on continuing to carry out the law enforcement supervision of bidding, auction and listing of the use rights of operating land, 31 Mar. [online] Available at: https://law.lawtime.cn/d402146407240.html [Accessed 23 Feb 2019].
- Morris, R. J., 1988. Book Review of the Urbanization of Capital and Consciousness and the Urban Experience, by David Harvey. [Online] The University of Chicago Press.

 Available at:

 https://www.jstor.org/stable/1881406?seq=1#page_scan_tab_contents>
 - [Accessed 15 Mar 2019].
- National People's Congress (NPC), 1984. Report of the State Council on 1984. [online]

 Available at:
 - http://www.npc.gov.cn/wxzl/gongbao/2000-12/06/content_5001504.htm [Accessed 22 Feb 2019].
- National Bureau of Statistics of China, 2008. China Statistical Yearbook. China Statistics

 Press. [online] Available at:
 - http://www.stats.gov.cn/tjsj/ndsj/2008/indexch.htm [Accessed 23 Feb 2019].
- National Bureau of Statistics of China, 2018. China Statistical Yearbook. China Statistics

 Press. [online] Available at:
 - http://www.stats.gov.cn/tjsj/ndsj/2018/indexch.htm [Accessed 27 Feb 2019].
- Party Literature Research Centre of the CPC Central Committee, 1996. Opinions of the Central Committee of the CPC and the State Council on the current economic situation and strengthening macroeconomic control. Beijing: People's Publishing Press.

- Peng, W.S., 2013. Drifting away from the dividend: looking for a new balance in China.

 Beijing: Social Sciences Academic Press (China).
- Shao, C.D., Su, D.N. and Deng, H.T., 2016. Housing Price, Land Finance and City

 Agglomeration Characteristics: The Road of China's City Development. Management

 World (2):19-31.
- Standing Committee of the National People's Congress. 1994. Delivered at the 8th Session of the 8th National People's Congress on July 5, 1994. Available at: http://bd.hebgt.gov.cn/baoding/bdcdj/zcfg/101477702488588.html [Accessed 22 Feb 2019].
- Sun, M.Y., 1983. Analysis on the Reform of Urban Workers' Housing Distribution and Rent System. Economic Research Journal (7).
- Tao, R. and Wang, H., 2010. China's unfinished transformation of land system reform: challenges and solutions. International Economic Review (2): 93-123.
- The State Council, 1980. Minutes of National Urban Planning Work Conference on approved and transferred by the State Council. [pdf] The Bulletin of the State Council of the People's Republic of China (20): 646-652. Available at:

 http://www.gov.cn/gongbao/shuju/1980/gwyb198020.pdf> [Accessed 15 Feb 2019].
- The State Council, 1994. Decision of the State Council on Deepening the Reform of Urban Housing System. [online] Available at:

 http://www.gov.cn/zhuanti/2015-06/13/content_2878960.htm [Accessed 22 Feb 2019].
- The State Council, 1998. Circular of the State Council on Further Deepening the Reform of Urban Housing System and Speeding Up Housing Construction. [pdf] Gazette of the State Council of the People's Republic of China (17), 1st Aug. Available at:

 http://www.gov.cn/gongbao/shuju/1998/gwyb199817.pdf [Accessed 22 Feb. 2019].
- The State Council, 2003. Circular of the State Council on Promoting the Sustainable and Healthy Development of Real Estate Market. [online] Gazette of the State Council of the People's Republic of China (18), 12 Aug. Available at:

 http://www.gov.cn/gongbao/content/2003/content_62364.htm [Accessed 23 Feb. 2019].
- Tian, Y.J. and Zheng, W.Y., 2011. Urban land use in China 2010. China City Press.
- Wang, L.N., 2009. Unsustainable Land Finance in China. Review of Economic Research (42): 12-13.

- Wang, Y.Z. and Zhang, J.X., 2018. Urbanization of Capital: A Preliminary Study on Urban Development in China after the Reform and Opening up Based on the Theory of Capital Three Cycle. Modern Urban Research (6): 99-105.
- Wu, T.H., 2013. New Urbanization Based on New Urban-Rural Relationship: Urbanization in China from the Perspective of Neo-Marxism Theory. City Planning Review 37(11), 9-19.
- Xu, X.Q., Zhou, Y.X. and Ning, Y.M., 2008. Urban Geography. Beijing: Higher Education Press.
- Yang, S., 2010. Comrade Deng Xiaoping's talk about the construction industry and housing issues. News of the Communist Party of China. [online] 30 Apr. Available at: http://theory.people.com.cn/GB/11497206.html [Accessed 22 Feb 2019].
- Yuan, J.H. and Chen, B.Y., 2018. Misreading China with Capital Liberalization and Spatialization Logic—Comments on David Harvey's Analysis of the Chinese Path. Marxism & Reality (5): 107-112.
- Yue, W.Z., 2016. New urbanization requires new capital accumulation and circulation models. Journal of the Guizhou Party School of CPC (1): 48-52.
- Zhao, J.X. and Feng, Y., 2017. Research on the Impact of Land Finance on China's Urbanization. Modern Management Science (12): 53-55.
- Zhao, Y.J., 2014. Land Finance: history, logic and choice. Urban Studies, 21(1): 1-13.
- Zhou, J.J. and Sun, Q.Q., 2018. Analysis of the State's Macro Regulation and Control of Real Estate Since the Reform and Opening-up. Academic Journal of Zhongzhou, Nov. 2018.
- Zhu, Y.H., 2015. China's rise and restructuring of the global order. Economic Herald (9): 21-27.
- Zou, W. and Liu, H.Y., 2015. Is Land Finance Drinking Poison to Quench Thirst Based on the Analysis of Temporal Spatial Dynamic Space Panel Analysis of China's Prefecture-Level Cities. Economist (9): 21-32.
- Zukin, S., 2006. David Harvey on Cities. In: N. Castree and D. Gregory, Eds. 2008. David Harvey: a critical reader. John Wiley & Sons. pp.102-120.